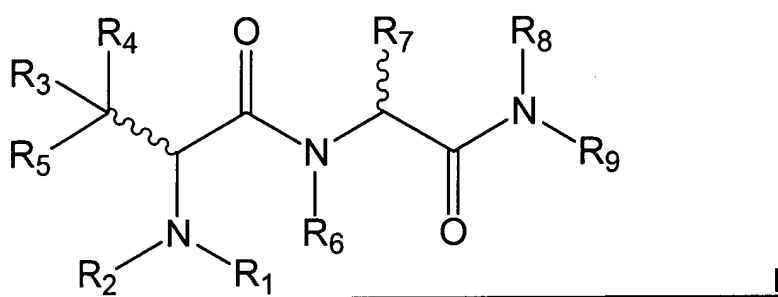


**Amendments to the Claims**

**IN THE CLAIMS:**

1-22. (Canceled).

23. (Currently Amended) ~~The compound of claim 22, wherein~~ A compound or pharmaceutically acceptable salt thereof, having the formula:



wherein:

R<sub>1</sub> and R<sub>2</sub> are independently selected from the group consisting of: H, R, and ArR-, provided that neither R<sub>1</sub> or R<sub>2</sub> is tert-butoxycarbonyl, and provided that if either one of R<sub>1</sub> and R<sub>2</sub> is H, each of R<sub>3</sub>, R<sub>4</sub>, R<sub>6</sub> and R<sub>8</sub> are H and R<sub>5</sub> is isopropyl or phenyl, and R<sub>7</sub> is methyl or benzyl, then for whichever of R<sub>1</sub> or R<sub>2</sub> is R or ArR-, the definition of R is limited to a saturated or unsaturated moiety having a linear, branched, or non-aromatic cyclic skeleton containing one to ten carbon atoms, zero to four nitrogen atoms, and zero to four sulfur atoms, and the carbon atoms are optionally substituted with: =S, -OH, -OR<sub>10</sub>, -O<sub>2</sub>CR<sub>10</sub>, -SH, -SR<sub>10</sub>, -SOCR<sub>10</sub>, -NH<sub>2</sub>, -NHR<sub>10</sub>, -N(R<sub>10</sub>)<sub>2</sub>, -NHCOR<sub>10</sub>, -NR<sub>10</sub>COR<sub>10</sub>, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R<sub>10</sub>, -CHO, -COR<sub>10</sub>, -CONH<sub>2</sub>, -CONHR<sub>10</sub>, -CON(R<sub>10</sub>)<sub>2</sub>, -COSH, -COSR<sub>10</sub>, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR<sub>10</sub>, -SO<sub>2</sub>R<sub>10</sub>, wherein R<sub>10</sub> is a linear, branched or cyclic, one to ten carbon saturated or unsaturated alkyl group or R<sub>1</sub> and R<sub>2</sub> are joined to form a ring;

R<sub>3</sub> and R<sub>4</sub> are independently selected from the group consisting of: H, R, and ArR-,  
or R<sub>3</sub> and R<sub>4</sub> are joined to form a ring;

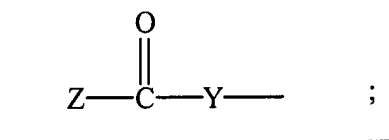
R<sub>5</sub> is selected from the group consisting of: H, R, ArR-, and Ar;

R<sub>6</sub> is selected from the group consisting of: H, R, and ArR-;

R<sub>7</sub> and R<sub>8</sub> are independently selected from the group consisting of: H, R, and ArR-;

and

R<sub>9</sub> is:



R is defined as a saturated or unsaturated moiety having a linear, branched, or  
non-aromatic cyclic skeleton containing one to ten carbon atoms, zero to four nitrogen  
atoms, zero to four oxygen atoms, and zero to four sulfur atoms, and the carbon atoms  
are optionally substituted with: =O, =S, -OH, -OR<sub>10</sub>, -O<sub>2</sub>CR<sub>10</sub>, -SH, -SR<sub>10</sub>, -SOCR<sub>10</sub>, -NH<sub>2</sub>,  
-NHR<sub>10</sub>, -N(R<sub>10</sub>)<sub>2</sub>, -NHCOR<sub>10</sub>, -NR<sub>10</sub>COR<sub>10</sub>, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R<sub>10</sub>, -CHO,  
-COR<sub>10</sub>, -CONH<sub>2</sub>, -CONHR<sub>10</sub>, -CON(R<sub>10</sub>)<sub>2</sub>, -COSH, -COSR<sub>10</sub>, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR<sub>10</sub>,  
-SO<sub>2</sub>R<sub>10</sub>, wherein R<sub>10</sub> is a linear, branched or cyclic, one to ten carbon saturated or  
unsaturated alkyl group.

the ring formed by joining R<sub>1</sub> and R<sub>2</sub> or by joining R<sub>3</sub> and R<sub>4</sub> is a three to seven  
member non-aromatic cyclic skeleton within the definition of R,

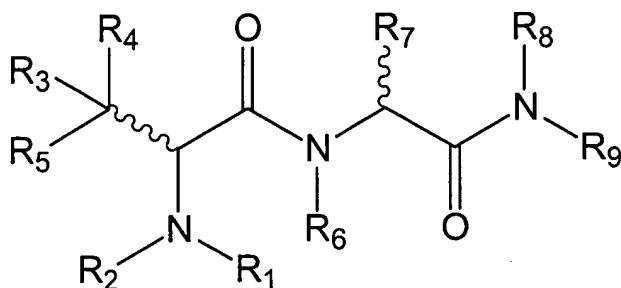
Ar is an aromatic ring selected from the group consisting of: phenyl, naphthyl, anthracyl, and pyrrolyl;

Y is a linear, unsaturated, two to six carbon alkyl group, optionally substituted with R, ArR-, or X; provided however if R<sub>8</sub> is H, then the optional substituents on Y are limited to R and ArR- wherein R is linear, branched or cyclic alkyl of one to ten carbon atoms and Ar is phenyl, naphthyl, anthracyl, or phenanthryl;

X is defined as a moiety selected from the group consisting of: -OH, -OR, =O, =S, -O<sub>2</sub>CR, -SH, -SR, -SOCR, -NH<sub>2</sub>, -NHR, -N(R)<sub>2</sub>, -NHCOR, -NRCOR, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R, -CHO, -COR, -CONH<sub>2</sub>, -CONHR, -CON(R)<sub>2</sub>, -COSH, -COSR, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR, and -SO<sub>2</sub>R; and

Z is defined as a moiety selected from the group consisting of: -OH, -OR; -SH; -SR; -NH<sub>2</sub>; -NRCH(R<sub>11</sub>)COOH; and -NRCH(R<sub>11</sub>)COOH, wherein R<sub>11</sub> is a moiety having the formula: R, or -(CH<sub>2</sub>)<sub>n</sub>NR<sub>12</sub>R<sub>13</sub>, wherein n=1-4 and R<sub>12</sub> and R<sub>13</sub> are independently selected from the group consisting of: H; R; and -C(NH)(NH<sub>2</sub>), or pharmaceutically acceptable salt thereof.

24. (Previously Presented) A compound or pharmaceutically acceptable salt thereof, having the formula:



wherein:

R<sub>1</sub> and R<sub>2</sub> are independently selected from the group consisting of: H, R, and ArR-, provided that neither R<sub>1</sub> or R<sub>2</sub> is tert-butoxycarbonyl, or R<sub>1</sub> and R<sub>2</sub> are joined to form a ring;

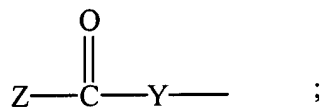
R<sub>3</sub> and R<sub>4</sub> are independently selected from the group consisting of: H, R, and ArR-, or R<sub>3</sub> and R<sub>4</sub> are joined to form a ring;

R<sub>5</sub> is selected from the group consisting of: naphthyl, anthracyl, ~~or~~ and pyrrolyl;

R<sub>6</sub> is selected from the group consisting of: H, R, and ArR-;

R<sub>7</sub> and R<sub>8</sub> are independently selected from the group consisting of: H, R, and ArR-;  
and

R<sub>9</sub> is:



R is defined as a saturated or unsaturated moiety having a linear, branched, or non-aromatic cyclic skeleton containing one to ten carbon atoms, zero to four nitrogen atoms, zero to four oxygen atoms, and zero to four sulfur atoms, and the carbon atoms are optionally substituted with: =O, =S, -OH, -OR<sub>10</sub>, -O<sub>2</sub>CR<sub>10</sub>, -SH, -SR<sub>10</sub>, -SOCR<sub>10</sub>, -NH<sub>2</sub>, -NHR<sub>10</sub>, -N(R<sub>10</sub>)<sub>2</sub>, -NHCOR<sub>10</sub>, -NR<sub>10</sub>COR<sub>10</sub>, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R<sub>10</sub>, -CHO, -COR<sub>10</sub>, -CONH<sub>2</sub>, -CONHR<sub>10</sub>, -CON(R<sub>10</sub>)<sub>2</sub>, -COSH, -COSR<sub>10</sub>, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR<sub>10</sub>, -SO<sub>2</sub>R<sub>10</sub>, wherein R<sub>10</sub> is a linear, branched or cyclic, one to ten carbon saturated or

unsaturated alkyl group,

the ring formed by joining R<sub>1</sub> and R<sub>2</sub> or by joining R<sub>3</sub> and R<sub>4</sub> is a three to seven member non-aromatic cyclic skeleton within the definition of R,

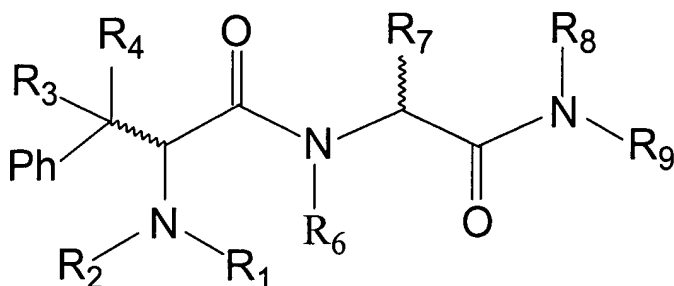
X is defined as a moiety selected from the group consisting of: -OH, -OR, =O, =S, -O<sub>2</sub>CR, -SH, -SR, -SOCR, -NH<sub>2</sub>, -NHR, -N(R)<sub>2</sub>, -NHCOR, -NRCOR, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R, -CHO, -COR, -CONH<sub>2</sub>, -CONHR, -CON(R)<sub>2</sub>, -COSH, -COSR, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR, and -SO<sub>2</sub>R;

Ar is an aromatic ring selected from the group consisting of: phenyl, naphthyl, anthracyl, phenanthryl, furyl, pyrrolyl, thiophenyl, benzofuryl, benzothiophenyl, quinolinyl, isoquinolinyl, imidazolyl, thiazolyl, oxazolyl, and pyridinyl, optionally substituted with R or X;

Y is a linear, unsaturated, two to six carbon alkyl group, optionally substituted with R, ArR-, or X; provided however if R<sub>8</sub> is H, then the optional substituents on Y are limited to R and ArR- wherein R is linear, branched or cyclic alkyl of one to ten carbon atoms and Ar is phenyl, naphthyl, anthracyl, or phenanthryl; and

Z is defined as a moiety selected from the group consisting of: -OH, -OR, -SH, -SR, -NH<sub>2</sub>, -NRCH(R<sub>11</sub>)COOH; and -NRCH(R<sub>11</sub>)COOH, wherein R<sub>11</sub> is a moiety having the formula: R, or -(CH<sub>2</sub>)<sub>n</sub>NR<sub>12</sub>R<sub>13</sub>, wherein n=1-4 and R<sub>12</sub> and R<sub>13</sub> are independently selected from the group consisting of: H; R; and -C(NH)(NH<sub>2</sub>), or pharmaceutically acceptable salt thereof.

25. (Currently Amended) ~~The compound of claim 22, wherein~~ A compound or pharmaceutically acceptable salt thereof, having the formula:



wherein:

R<sub>1</sub> and R<sub>2</sub> are independently selected from the group consisting of: H, R, and ArR-, provided that neither R<sub>1</sub> or R<sub>2</sub> is tert-butoxycarbonyl, and provided that if either one of R<sub>1</sub> and R<sub>2</sub> is H, each of R<sub>3</sub>, R<sub>4</sub>, R<sub>6</sub> and R<sub>8</sub> are H and R<sub>5</sub> is isopropyl or phenyl, and R<sub>7</sub> is methyl or benzyl, then for whichever of R<sub>1</sub> or R<sub>2</sub> is R or ArR-, the definition of R is limited to a saturated or unsaturated moiety having a linear, branched, or non-aromatic cyclic skeleton containing one to ten carbon atoms, zero to four nitrogen atoms, and zero to four sulfur atoms, and the carbon atoms are optionally substituted with: =S, -OH, -OR<sub>10</sub>, -O<sub>2</sub>CR<sub>10</sub>, -SH, -SR<sub>10</sub>, -SOCR<sub>10</sub>, -NH<sub>2</sub>, -NHR<sub>10</sub>, -N(R<sub>10</sub>)<sub>2</sub>, -NHCOR<sub>10</sub>, -NR<sub>10</sub>COR<sub>10</sub>, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R<sub>10</sub>, -CHO, -COR<sub>10</sub>, -CONH<sub>2</sub>, -CONHR<sub>10</sub>, -CON(R<sub>10</sub>)<sub>2</sub>, -COSH, -COSR<sub>10</sub>, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR<sub>10</sub>, -SO<sub>2</sub>R<sub>10</sub>, wherein R<sub>10</sub> is a linear, branched or cyclic, one to ten carbon saturated or unsaturated alkyl group or R<sub>1</sub> and R<sub>2</sub> are joined to form a ring;

R<sub>3</sub> and R<sub>4</sub> are independently selected from the group consisting of: H, R, and ArR-, or R<sub>3</sub> and R<sub>4</sub> are joined to form a ring;

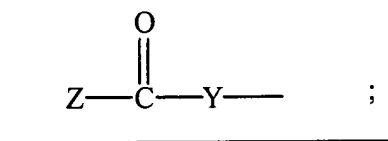
~~R<sub>5</sub> is phenyl~~

R<sub>6</sub> is selected from the group consisting of: H, R, and ArR-;

R<sub>7</sub> and R<sub>8</sub> are independently selected from the group consisting of: H, R, and ArR-;

and

R<sub>9</sub> is:



R is defined as a saturated or unsaturated moiety having a linear, branched, or non-aromatic cyclic skeleton containing one to ten carbon atoms, zero to four nitrogen atoms, zero to four oxygen atoms, and zero to four sulfur atoms, and the carbon atoms are optionally substituted with: =O, =S, -OH, -OR<sub>10</sub>, -O<sub>2</sub>CR<sub>10</sub>, -SH, -SR<sub>10</sub>, -SOCR<sub>10</sub>, -NH<sub>2</sub>, -NHR<sub>10</sub>, -N(R<sub>10</sub>)<sub>2</sub>, -NHCOR<sub>10</sub>, -NR<sub>10</sub>COR<sub>10</sub>, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R<sub>10</sub>, -CHO, -COR<sub>10</sub>, -CONH<sub>2</sub>, -CONHR<sub>10</sub>, -CON(R<sub>10</sub>)<sub>2</sub>, -COSH, -COSR<sub>10</sub>, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR<sub>10</sub>, -SO<sub>2</sub>R<sub>10</sub>, wherein R<sub>10</sub> is a linear, branched or cyclic, one to ten carbon saturated or unsaturated alkyl group,

the ring formed by joining R<sub>1</sub> and R<sub>2</sub> or by joining R<sub>3</sub> and R<sub>4</sub> is a three to seven member non-aromatic cyclic skeleton within the definition of R,

Ar is an aromatic ring selected from the group consisting of: phenyl, naphthyl, anthracyl, phenanthryl, furyl, pyrrolyl, thiophenyl, benzofuryl, benzothiophenyl, quinolinyl, isoquinolinyl, imidazolyl, thiazolyl, oxazolyl, and pyridinyl, optionally substituted with R or X;

X is defined as a moiety selected from the group consisting of: -OH, -OR, =O, =S, -O<sub>2</sub>CR, -SH, -SR, -SOCR, -NH<sub>2</sub>, -NHR, -N(R)<sub>2</sub>, -NHCOR, -NRCOR, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R, -CHO, -COR, -CONH<sub>2</sub>, -CONHR, -CON(R)<sub>2</sub>, -COSH, -COSR, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR, and -SO<sub>2</sub>R;

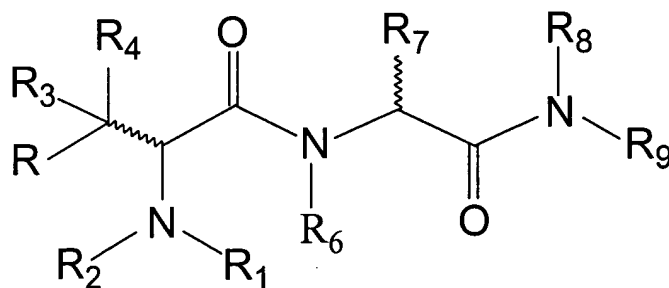
Y is a linear, unsaturated, two to six carbon alkyl group, optionally substituted with R, ArR-, or X; provided however if R<sub>8</sub> is H, then the optional substituents on Y are limited to R and ArR- wherein R is linear, branched or cyclic alkyl of one to ten carbon atoms and Ar is phenyl, naphthyl, anthracyl, or phenanthryl; and

Z is defined as a moiety selected from the group consisting of: -OH, -OR; -SH; -SR; -NH<sub>2</sub>; -NRCH(R<sub>11</sub>)COOH; and -NRCH(R<sub>11</sub>)COOH, wherein R<sub>11</sub> is a moiety having the formula: R, or -(CH<sub>2</sub>)<sub>n</sub>NR<sub>12</sub>R<sub>13</sub>, wherein n=1-4 and R<sub>12</sub> and R<sub>13</sub> are independently selected from the group consisting of: H; R; and -C(NH)(NH<sub>2</sub>), or pharmaceutically acceptable salt thereof.

26. (Cancelled).

27. (Currently Amended) ~~The compound of claim 22, wherein~~

A compound or pharmaceutically acceptable salt thereof, having the formula:



wherein:

R<sub>1</sub> and R<sub>2</sub> are independently selected from the group consisting of: H, R, and ArR-, provided that neither R<sub>1</sub> or R<sub>2</sub> is tert-butoxycarbonyl, and provided that if either one of R<sub>1</sub> and R<sub>2</sub> is H, each of R<sub>3</sub>, R<sub>4</sub>, R<sub>6</sub> and R<sub>8</sub> are H and R<sub>5</sub> is isopropyl or phenyl, and R<sub>7</sub> is methyl or benzyl, then for whichever of R<sub>1</sub> or R<sub>2</sub> is R or ArR-, the definition of R is limited to a saturated or unsaturated moiety having a linear, branched, or non-aromatic cyclic skeleton containing one to ten carbon atoms, zero to four nitrogen atoms, and zero to four sulfur atoms, and the carbon atoms are optionally substituted with: =S, -OH, -OR<sub>10</sub>, -O<sub>2</sub>CR<sub>10</sub>, -SH, -SR<sub>10</sub>, -SOCR<sub>10</sub>, -NH<sub>2</sub>, -NHR<sub>10</sub>, -N(R<sub>10</sub>)<sub>2</sub>, -NHCOR<sub>10</sub>, -NR<sub>10</sub>COR<sub>10</sub>, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R<sub>10</sub>, -CHO, -COR<sub>10</sub>, -CONH<sub>2</sub>, -CONHR<sub>10</sub>, -CON(R<sub>10</sub>)<sub>2</sub>, -COSH, -COSR<sub>10</sub>, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR<sub>10</sub>, -SO<sub>2</sub>R<sub>10</sub>, wherein R<sub>10</sub> is a linear, branched or cyclic, one to ten carbon saturated or unsaturated alkyl group or R<sub>1</sub> and R<sub>2</sub> are joined to form a ring;

R<sub>3</sub> and R<sub>4</sub> are independently selected from the group consisting of: H, R, and ArR-, or R<sub>3</sub> and R<sub>4</sub> are joined to form a ring;

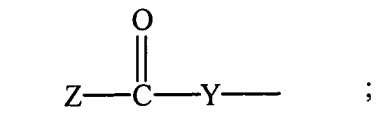
R<sub>5</sub> is R

R<sub>6</sub> is selected from the group consisting of: H, R, and ArR-;

R<sub>7</sub> and R<sub>8</sub> are independently selected from the group consisting of: H, R, and ArR-;

and

R<sub>9</sub> is:



R is defined as a saturated or unsaturated moiety having a linear, branched, or non-aromatic cyclic skeleton containing one to ten carbon atoms, zero to four nitrogen atoms, zero to four oxygen atoms, and zero to four sulfur atoms, and the carbon atoms are optionally substituted with: =O, =S, -OH, -OR<sub>10</sub>, -O<sub>2</sub>CR<sub>10</sub>, -SH, -SR<sub>10</sub>, -SOCR<sub>10</sub>, -NH<sub>2</sub>, -NHR<sub>10</sub>, -N(R<sub>10</sub>)<sub>2</sub>, -NHCOR<sub>10</sub>, -NR<sub>10</sub>COR<sub>10</sub>, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R<sub>10</sub>, -CHO, -COR<sub>10</sub>, -CONH<sub>2</sub>, -CONHR<sub>10</sub>, -CON(R<sub>10</sub>)<sub>2</sub>, -COSH, -COSR<sub>10</sub>, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR<sub>10</sub>, -SO<sub>2</sub>R<sub>10</sub>, wherein R<sub>10</sub> is a linear, branched or cyclic, one to ten carbon saturated or unsaturated alkyl group,

the ring formed by joining R<sub>1</sub> and R<sub>2</sub> or by joining R<sub>3</sub> and R<sub>4</sub> is a three to seven member non-aromatic cyclic skeleton within the definition of R,

Ar is an aromatic ring selected from the group consisting of: phenyl, naphthyl, anthracyl, phenanthryl, furyl, pyrrolyl, thiophenyl, benzofuryl, benzothiophenyl, quinolinyl, isoquinolinyl, imidazolyl, thiazolyl, oxazolyl, and pyridinyl, optionally substituted with R or X;

X is defined as a moiety selected from the group consisting of: -OH, -OR, =O, =S, -O<sub>2</sub>CR, -SH, -SR, -SOCR, -NH<sub>2</sub>, -NHR, -N(R)<sub>2</sub>, -NHCOR, -NRCOR, -I, -Br, -Cl, -F, -CN,

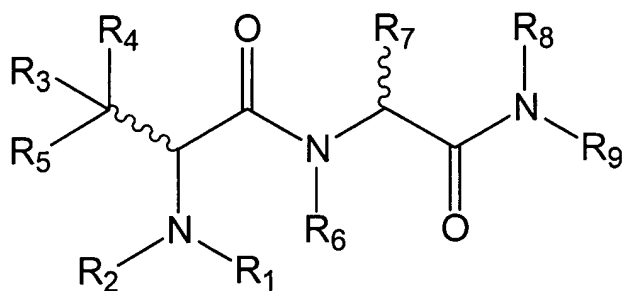
-CO<sub>2</sub>H, -CO<sub>2</sub>R, -CHO, -COR, -CONH<sub>2</sub>, -CONHR, -CON(R)<sub>2</sub>, -COSH, -COSR, -NO<sub>2</sub>,  
-SO<sub>3</sub>H, -SOR, and -SO<sub>2</sub>R;

Y is a linear, unsaturated, two to six carbon alkyl group, optionally substituted with R, ArR-, or X; provided however if R<sub>8</sub> is H, then the optional substituents on Y are limited to R and ArR- wherein R is linear, branched or cyclic alkyl of one to ten carbon atoms and Ar is phenyl, naphthyl, anthracyl, or phenanthryl; and

Z is defined as a moiety selected from the group consisting of: -OH, -OR; -SH; -SR; -NH<sub>2</sub>; -NRCH(R<sub>11</sub>)COOH; and -NRCH(R<sub>11</sub>)COOH, wherein R<sub>11</sub> is a moiety having the formula: R, or -(CH<sub>2</sub>)<sub>n</sub>NR<sub>12</sub>R<sub>13</sub>, wherein n=1-4 and R<sub>12</sub> and R<sub>13</sub> are independently selected from the group consisting of: H; R; and -C(NH)(NH<sub>2</sub>), or pharmaceutically acceptable salt thereof.

28. (Cancelled)

29. (Previously Presented) A compound or pharmaceutically acceptable salt thereof, having the formula:



wherein:

R<sub>1</sub> and R<sub>2</sub> are independently selected from the group consisting of: H, R, and ArR-, provided that neither R<sub>1</sub> or R<sub>2</sub> is tert-butoxycarbonyl, or R<sub>1</sub> and R<sub>2</sub> are joined to form a

ring;

one of R<sub>3</sub> and R<sub>4</sub> is H and the other of R<sub>3</sub> and R<sub>4</sub> is ArR- ;

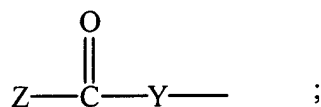
R<sub>5</sub> is selected from the group consisting of: H, R, ArR-, and Ar;

R<sub>6</sub> is selected from the group consisting of: H, R, and ArR-;

R<sub>7</sub> and R<sub>8</sub> are independently selected from the group consisting of: H, R, and ArR-;

and

R<sub>9</sub> is:



R is defined as a saturated or unsaturated moiety having a linear, branched, or non-aromatic cyclic skeleton containing one to ten carbon atoms, zero to four nitrogen atoms, zero to four oxygen atoms, and zero to four sulfur atoms, and the carbon atoms are optionally substituted with: =O, =S, -OH, -OR<sub>10</sub>, -O<sub>2</sub>CR<sub>10</sub>, -SH, -SR<sub>10</sub>, -SOCR<sub>10</sub>, -NH<sub>2</sub>, -NHR<sub>10</sub>, -N(R<sub>10</sub>)<sub>2</sub>, -NHCOR<sub>10</sub>, -NR<sub>10</sub>COR<sub>10</sub>, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R<sub>10</sub>, -CHO, -COR<sub>10</sub>, -CONH<sub>2</sub>, -CONHR<sub>10</sub>, -CON(R<sub>10</sub>)<sub>2</sub>, -COSH, -COSR<sub>10</sub>, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR<sub>10</sub>, -SO<sub>2</sub>R<sub>10</sub>, wherein R<sub>10</sub> is a linear, branched or cyclic, one to ten carbon saturated or unsaturated alkyl group,

the ring formed by joining R<sub>1</sub> and R<sub>2</sub> or by joining R<sub>3</sub> and R<sub>4</sub> is a three to seven member non-aromatic cyclic skeleton within the definition of R,

X is defined as a moiety selected from the group consisting of: -OH, -OR, =O, =S,

-O<sub>2</sub>CR, -SH, -SR, -SOCR, -NH<sub>2</sub>, -NHR, -N(R)<sub>2</sub>, -NHCOR, -NRCOR, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R, -CHO, -COR, -CONH<sub>2</sub>, -CONHR, -CON(R)<sub>2</sub>, -COSH, -COSR, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR, and -SO<sub>2</sub>R;

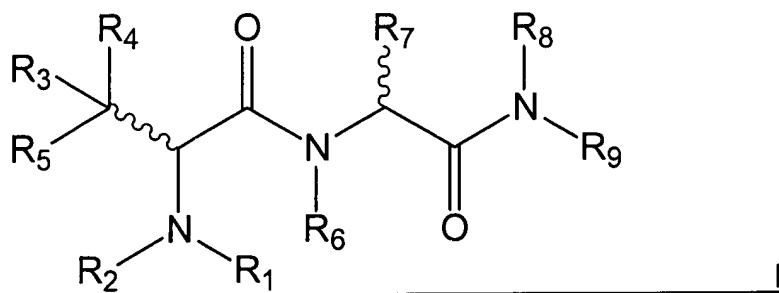
Ar is an aromatic ring selected from the group consisting of: phenyl, naphthyl, anthracyl, phenanthryl, furyl, pyrrolyl, thiophenyl, benzofuryl, benzothiophenyl, quinolinyl, isoquinolyl, imidazolyl, thiazolyl, oxazolyl, and pyridinyl, optionally substituted with R or X;

Y is a linear, unsaturated, two to six carbon alkyl group, optionally substituted with R, ArR-, or X; provided however if R<sub>8</sub> is H, then the optional substituents on Y are limited to R and ArR- wherein R is linear, branched or cyclic alkyl of one to ten carbon atoms and Ar is phenyl, naphthyl, anthracyl, or phenanthryl; and

Z is defined as a moiety selected from the group consisting of: -OH, -OR; -SH; -SR; -NH<sub>2</sub>; -NRCH(R<sub>11</sub>)COOH; and -NRCH(R<sub>11</sub>)COOH, wherein R<sub>11</sub> is a moiety having the formula: R, or -(CH<sub>2</sub>)<sub>n</sub>NR<sub>12</sub>R<sub>13</sub>, wherein n=1-4 and R<sub>12</sub> and R<sub>13</sub> are independently selected from the group consisting of: H; R; and -C(NH)(NH<sub>2</sub>), or pharmaceutically acceptable salt thereof.

30. (Cancelled).

31. (Currently Amended) ~~The compound of claim 30, wherein~~ A compound or pharmaceutically acceptable salt thereof, having the formula:



wherein:

R<sub>1</sub> and R<sub>2</sub> are independently selected from the group consisting of: H, R, and ArR-, provided that neither R<sub>1</sub> or R<sub>2</sub> is tert-butoxycarbonyl, or R<sub>1</sub> and R<sub>2</sub> are joined to form a ring;

R<sub>3</sub> and R<sub>4</sub> are independently selected from the group consisting of: methyl, ethyl, n-propyl and n-butyl;

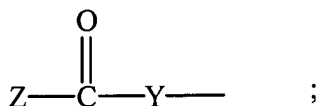
R<sub>5</sub> is selected from the group consisting of: H, R, ArR-, and Ar;

R<sub>6</sub> is selected from the group consisting of: H, R, and ArR-;

R<sub>7</sub> and R<sub>8</sub> are independently selected from the group consisting of: H, R, and ArR-;

and

R<sub>9</sub> is:



R is defined as a saturated or unsaturated moiety having a linear, branched, or non-aromatic cyclic skeleton containing one to ten carbon atoms, zero to four nitrogen atoms, zero to four oxygen atoms, and zero to four sulfur atoms, and the carbon atoms are

optionally substituted with: =O, =S, -OH, -OR<sub>10</sub>, -O<sub>2</sub>CR<sub>10</sub>, -SH, -SR<sub>10</sub>, -SOCR<sub>10</sub>, -NH<sub>2</sub>, -NHR<sub>10</sub>, -N(R<sub>10</sub>)<sub>2</sub>, -NHCOR<sub>10</sub>, -NR<sub>10</sub>COR<sub>10</sub>, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R<sub>10</sub>, -CHO, -COR<sub>10</sub>, -CONH<sub>2</sub>, -CONHR<sub>10</sub>, -CON(R<sub>10</sub>)<sub>2</sub>, -COSH, -COSR<sub>10</sub>, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR<sub>10</sub>, -SO<sub>2</sub>R<sub>10</sub>, wherein R<sub>10</sub> is a linear, branched or cyclic, one to ten carbon saturated or unsaturated alkyl group,

the ring formed by joining R<sub>1</sub> and R<sub>2</sub> or by joining R<sub>3</sub> and R<sub>4</sub> is a three to seven member non-aromatic cyclic skeleton within the definition of R,

X is defined as a moiety selected from the group consisting of: -OH, -OR, =O, =S, -O<sub>2</sub>CR, -SH, -SR, -SOCR, -NH<sub>2</sub>, -NHR, -N(R)<sub>2</sub>, -NHCOR, -NRCOR, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R, -CHO, -COR, -CONH<sub>2</sub>, -CONHR, -CON(R)<sub>2</sub>, -COSH, -COSR, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR, and -SO<sub>2</sub>R;

Ar is an aromatic ring selected from the group consisting of: phenyl, naphthyl, anthracyl, phenanthryl, furyl, pyrrolyl, thiophenyl, benzofuryl, benzothiophenyl, quinolinyl, isoquinolinyl, imidazolyl, thiazolyl, oxazolyl, and pyridinyl, optionally substituted with R or X;

Y is a linear, unsaturated, two to six carbon alkyl group, optionally substituted with R, ArR-, or X; provided however if R<sub>8</sub> is H, then the optional substituents on Y are limited to R and ArR- wherein R is linear, branched or cyclic alkyl of one to ten carbon atoms and Ar is phenyl, naphthyl, anthracyl, or phenanthryl; and

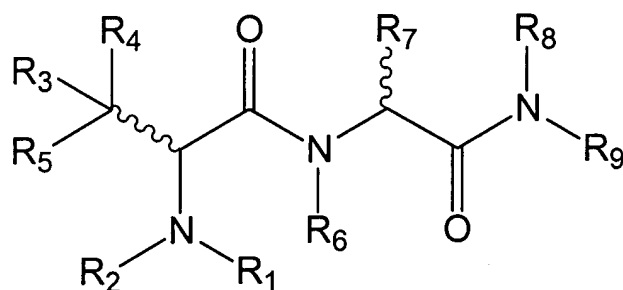
Z is defined as a moiety selected from the group consisting of: -OH, -OR; -SH; -SR; -NH<sub>2</sub>; -NRCH(R<sub>11</sub>)COOH; and -NRCH(R<sub>11</sub>)COOH, wherein R<sub>11</sub> is a moiety having the formula: R, or -(CH<sub>2</sub>)<sub>n</sub>NR<sub>12</sub>R<sub>13</sub>, wherein n=1-4 and R<sub>12</sub> and R<sub>13</sub> are independently selected

from the group consisting of: H; R; and -C(NH) (NH<sub>2</sub>), or pharmaceutically acceptable salt thereof.

32. (Previously Presented) The compound of claim 31, wherein R<sub>3</sub> and R<sub>4</sub> are each -CH<sub>3</sub>.

33. (Previously Presented) The compound of claim 32, wherein R<sub>5</sub> is Ar.

34. (Currently Amended) ~~The compound of claim 22, wherein A~~ compound or pharmaceutically acceptable salt thereof, having the formula:



wherein:

R<sub>1</sub> and R<sub>2</sub> are independently selected from the group consisting of: H, R, and ArR-, provided that neither R<sub>1</sub> or R<sub>2</sub> is tert-butoxycarbonyl, or R<sub>1</sub> and R<sub>2</sub> are joined to form a ring;

R<sub>3</sub> and R<sub>4</sub> are joined and form a moiety selected from the group consisting of β-cyclopropyl, β-cyclobutyl, β-cyclopentyl and β-cyclohexyl;

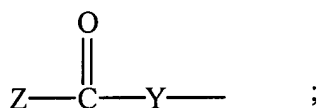
R<sub>5</sub> is selected from the group consisting of: H, R, ArR-, and Ar;

R<sub>6</sub> is selected from the group consisting of: H, R, and ArR-;

R<sub>7</sub> and R<sub>8</sub> are independently selected from the group consisting of: H, R, and ArR-;

and

R<sub>9</sub> is:



R is defined as a saturated or unsaturated moiety having a linear, branched, or non-aromatic cyclic skeleton containing one to ten carbon atoms, zero to four nitrogen atoms, zero to four oxygen atoms, and zero to four sulfur atoms, and the carbon atoms are optionally substituted with: =O, =S, -OH, -OR<sub>10</sub>, -O<sub>2</sub>CR<sub>10</sub>, -SH, -SR<sub>10</sub>, -SOCR<sub>10</sub>, -NH<sub>2</sub>, -NHR<sub>10</sub>, -N(R<sub>10</sub>)<sub>2</sub>, -NHCOR<sub>10</sub>, -NR<sub>10</sub>COR<sub>10</sub>, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R<sub>10</sub>, -CHO, -COR<sub>10</sub>, -CONH<sub>2</sub>, -CONHR<sub>10</sub>, -CON(R<sub>10</sub>)<sub>2</sub>, -COSH, -COSR<sub>10</sub>, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR<sub>10</sub>, -SO<sub>2</sub>R<sub>10</sub>, wherein R<sub>10</sub> is a linear, branched or cyclic, one to ten carbon saturated or unsaturated alkyl group,

the ring formed by joining R<sub>1</sub> and R<sub>2</sub> or by joining R<sub>3</sub> and R<sub>4</sub> is a three to seven member non-aromatic cyclic skeleton within the definition of R,

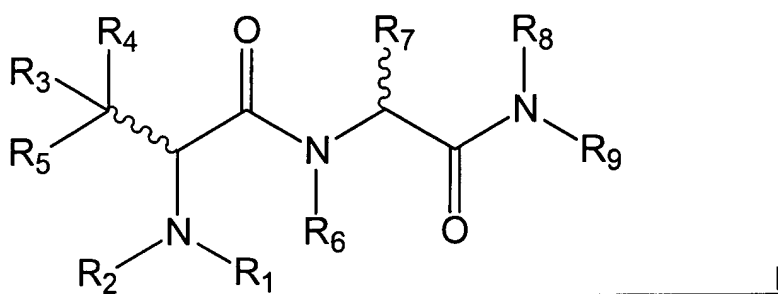
X is defined as a moiety selected from the group consisting of: -OH, -OR, =O, =S, -O<sub>2</sub>CR, -SH, -SR, -SOCR, -NH<sub>2</sub>, -NHR, -N(R)<sub>2</sub>, -NHCOR, -NRCOR, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R, -CHO, -COR, -CONH<sub>2</sub>, -CONHR, -CON(R)<sub>2</sub>, -COSH, -COSR, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR, and -SO<sub>2</sub>R;

Ar is an aromatic ring selected from the group consisting of: phenyl, naphthyl, anthracyl, phenanthryl, furyl, pyrrolyl, thiophenyl, benzofuryl, benzothiophenyl, quinolinyl, isoquinolinyl, imidazolyl, thiazolyl, oxazolyl, and pyridinyl, optionally substituted with R or X;

Y is a linear, unsaturated, two to six carbon alkyl group, optionally substituted with R, ArR-, or X; provided however if R<sub>8</sub> is H, then the optional substituents on Y are limited to R and ArR- wherein R is linear, branched or cyclic alkyl of one to ten carbon atoms and Ar is phenyl, naphthyl, anthracyl, or phenanthryl; and

Z is defined as a moiety selected from the group consisting of: -OH, -OR; -SH; -SR; -NH<sub>2</sub>; -NRCH(R<sub>11</sub>)COOH; and -NRCH(R<sub>11</sub>)COOH, wherein R<sub>11</sub> is a moiety having the formula: R, or -(CH<sub>2</sub>)<sub>n</sub>NR<sub>12</sub>R<sub>13</sub>, wherein n=1-4 and R<sub>12</sub> and R<sub>13</sub> are independently selected from the group consisting of: H; R; and -C(NH)(NH<sub>2</sub>), or pharmaceutically acceptable salt thereof.

35. (Currently Amended) ~~The compound of claim 22, wherein~~ A compound or pharmaceutically acceptable salt thereof, having the formula:



wherein:

R<sub>1</sub> and R<sub>2</sub> are independently selected from the group consisting of H, methyl, ethyl, propyl, n-butyl and acetyl, provided that if either one of R<sub>1</sub> and R<sub>2</sub> is H, each of R<sub>3</sub>, R<sub>4</sub>, R<sub>6</sub> and R<sub>8</sub> are H and R<sub>5</sub> is isopropyl or phenyl, and R<sub>7</sub> is methyl or benzyl, then for whichever of R<sub>1</sub> or R<sub>2</sub> is R or ArR-, the definition of R is limited to a saturated or unsaturated moiety having a linear, branched, or non-aromatic cyclic skeleton containing one to ten carbon

atoms, zero to four nitrogen atoms, and zero to four sulfur atoms, and the carbon atoms are optionally substituted with: =S, -OH, -OR<sub>10</sub>, -O<sub>2</sub>CR<sub>10</sub>, -SH, -SR<sub>10</sub>, -SOCR<sub>10</sub>, -NH<sub>2</sub>, -NHR<sub>10</sub>, -N(R<sub>10</sub>)<sub>2</sub>, -NHCOR<sub>10</sub>, -NR<sub>10</sub>COR<sub>10</sub>, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R<sub>10</sub>, -CHO, -COR<sub>10</sub>, -CONH<sub>2</sub>, -CONHR<sub>10</sub>, -CON(R<sub>10</sub>)<sub>2</sub>, -COSH, -COSR<sub>10</sub>, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR<sub>10</sub>, -SO<sub>2</sub>R<sub>10</sub>, wherein R<sub>10</sub> is a linear, branched or cyclic, one to ten carbon saturated or unsaturated alkyl group;

R<sub>3</sub> and R<sub>4</sub> are independently selected from the group consisting of: H, R, and ArR-, or R<sub>3</sub> and R<sub>4</sub> are joined to form a ring;

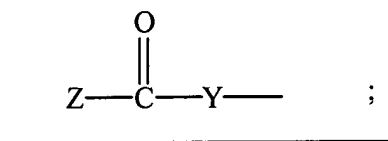
R<sub>5</sub> is selected from the group consisting of: H, R, ArR-, and Ar;

R<sub>6</sub> is selected from the group consisting of: H, R, and ArR-;

R<sub>7</sub> and R<sub>8</sub> are independently selected from the group consisting of: H, R, and ArR-;

and

R<sub>9</sub> is:



R is defined as a saturated or unsaturated moiety having a linear, branched, or non-aromatic cyclic skeleton containing one to ten carbon atoms, zero to four nitrogen atoms, zero to four oxygen atoms, and zero to four sulfur atoms, and the carbon atoms are optionally substituted with: =O, =S, -OH, -OR<sub>10</sub>, -O<sub>2</sub>CR<sub>10</sub>, -SH, -SR<sub>10</sub>, -SOCR<sub>10</sub>, -NH<sub>2</sub>, -NHR<sub>10</sub>, -N(R<sub>10</sub>)<sub>2</sub>, -NHCOR<sub>10</sub>, -NR<sub>10</sub>COR<sub>10</sub>, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R<sub>10</sub>, -CHO,

-COR<sub>10</sub>, -CONH<sub>2</sub>, -CONHR<sub>10</sub>, -CON(R<sub>10</sub>)<sub>2</sub>, -COSH, -COSR<sub>10</sub>, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR<sub>10</sub>, -SO<sub>2</sub>R<sub>10</sub>, wherein R<sub>10</sub> is a linear, branched or cyclic, one to ten carbon saturated or unsaturated alkyl group, the ring formed by joining R<sub>1</sub> and R<sub>2</sub> or by joining R<sub>3</sub> and R<sub>4</sub> is a three to seven member non-aromatic cyclic skeleton within the definition of R,

Ar is an aromatic ring selected from the group consisting of: phenyl, naphthyl, anthracyl, phenanthryl, furyl, pyrrolyl, thiophenyl, benzofuryl, benzothiophenyl, quinolinyl, isoquinolinyl, imidazolyl, thiazolyl, oxazolyl, and pyridinyl, optionally substituted with R or X;

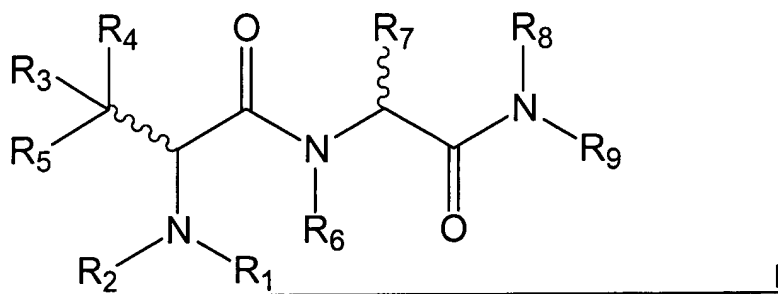
X is defined as a moiety selected from the group consisting of: -OH, -OR, =O, =S, -O<sub>2</sub>CR, -SH, -SR, -SOCR, -NH<sub>2</sub>, -NHR, -N(R)<sub>2</sub>, -NHCOR, -NRCOR, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R, -CHO, -COR, -CONH<sub>2</sub>, -CONHR, -CON(R)<sub>2</sub>, -COSH, -COSR, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR, and -SO<sub>2</sub>R;

Y is a linear, unsaturated, two to six carbon alkyl group, optionally substituted with R, ArR-, or X; provided however if R<sub>8</sub> is H, then the optional substituents on Y are limited to R and ArR- wherein R is linear, branched or cyclic alkyl of one to ten carbon atoms and Ar is phenyl, naphthyl, anthracyl, or phenanthryl; and

Z is defined as a moiety selected from the group consisting of: -OH, -OR; -SH; -SR; -NH<sub>2</sub>; -NRCH(R<sub>11</sub>)COOH; and -NRCH(R<sub>11</sub>)COOH, wherein R<sub>11</sub> is a moiety having the formula: R, or -(CH<sub>2</sub>)<sub>n</sub>NR<sub>12</sub>R<sub>13</sub>, wherein n=1-4 and R<sub>12</sub> and R<sub>13</sub> are independently selected from the group consisting of: H; R; and -C(NH)(NH<sub>2</sub>), or pharmaceutically acceptable salt thereof.

36. (Currently Amended) ~~The compound of claim 22, wherein~~

A compound or pharmaceutically acceptable salt thereof, having the formula:



wherein:

R<sub>1</sub> and R<sub>2</sub> are joined and form a moiety selected from the group consisting of cyclopropyl, cyclobutyl, cyclopentyl and cyclohexyl;

R<sub>3</sub> and R<sub>4</sub> are independently selected from the group consisting of: H, R, and ArR-,  
or R<sub>3</sub> and R<sub>4</sub> are joined to form a ring;

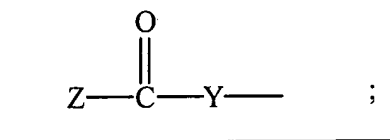
R<sub>5</sub> is selected from the group consisting of: H, R, ArR-, and Ar;

R<sub>6</sub> is selected from the group consisting of: H, R, and ArR-;

R<sub>7</sub> and R<sub>8</sub> are independently selected from the group consisting of: H, R, and ArR-;

and

R<sub>9</sub> is:



R is defined as a saturated or unsaturated moiety having a linear, branched, or non-aromatic cyclic skeleton containing one to ten carbon atoms, zero to four nitrogen atoms, zero to four oxygen atoms, and zero to four sulfur atoms, and the carbon atoms

are optionally substituted with: =O, =S, -OH, -OR<sub>10</sub>, -O<sub>2</sub>CR<sub>10</sub>, -SH, -SR<sub>10</sub>, -SOCR<sub>10</sub>, -NH<sub>2</sub>, -NHR<sub>10</sub>, -N(R<sub>10</sub>)<sub>2</sub>, -NHCOR<sub>10</sub>, -NR<sub>10</sub>COR<sub>10</sub>, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R<sub>10</sub>, -CHO, -COR<sub>10</sub>, -CONH<sub>2</sub>, -CONHR<sub>10</sub>, -CON(R<sub>10</sub>)<sub>2</sub>, -COSH, -COSR<sub>10</sub>, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR<sub>10</sub>, -SO<sub>2</sub>R<sub>10</sub>, wherein R<sub>10</sub> is a linear, branched or cyclic, one to ten carbon saturated or unsaturated alkyl group, the ring formed by joining R<sub>1</sub> and R<sub>2</sub> or by joining R<sub>3</sub> and R<sub>4</sub> is a three to seven member non-aromatic cyclic skeleton within the definition of R,

Ar is an aromatic ring selected from the group consisting of: phenyl, naphthyl, anthracyl, phenanthryl, furyl, pyrrolyl, thiophenyl, benzofuryl, benzothiophenyl, quinolinyl, isoquinolinyl, imidazolyl, thiazolyl, oxazolyl, and pyridinyl, optionally substituted with R or X;

X is defined as a moiety selected from the group consisting of: -OH, -OR, =O, =S, -O<sub>2</sub>CR, -SH, -SR, -SOCR, -NH<sub>2</sub>, -NHR, -N(R)<sub>2</sub>, -NHCOR, -NRCOR, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R, -CHO, -COR, -CONH<sub>2</sub>, -CONHR, -CON(R)<sub>2</sub>, -COSH, -COSR, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR, and -SO<sub>2</sub>R;

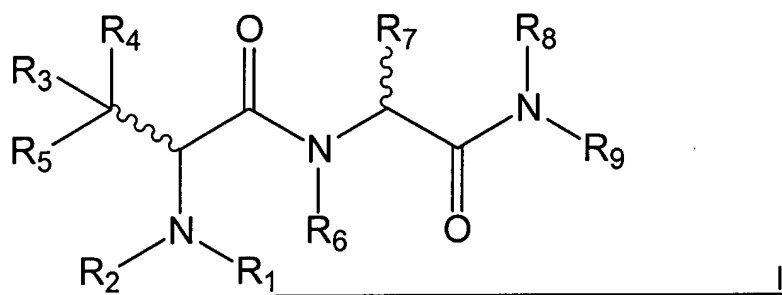
Y is a linear, unsaturated, two to six carbon alkyl group, optionally substituted with R, ArR-, or X; provided however if R<sub>8</sub> is H, then the optional substituents on Y are limited to R and ArR- wherein R is linear, branched or cyclic alkyl of one to ten carbon atoms and Ar is phenyl, naphthyl, anthracyl, or phenanthryl; and

Z is defined as a moiety selected from the group consisting of: -OH, -OR; -SH; -SR; -NH<sub>2</sub>; -NRCH(R<sub>11</sub>)COOH; and -NRCH(R<sub>11</sub>)COOH, wherein R<sub>11</sub> is a moiety having the formula: R, or -(CH<sub>2</sub>)<sub>n</sub>NR<sub>12</sub>R<sub>13</sub>, wherein n=1-4 and R<sub>12</sub> and R<sub>13</sub> are independently selected from the group consisting of: H; R; and -C(NH)(NH<sub>2</sub>), or pharmaceutically

acceptable salt thereof.

37. (Currently Amended) ~~The compound of claim 22, wherein~~

A compound or pharmaceutically acceptable salt thereof, having the formula:



wherein:

R<sub>1</sub> and R<sub>2</sub> are independently H, CH<sub>3</sub> or acetyl, provided that if either one of R<sub>1</sub> and R<sub>2</sub> is H, each of R<sub>3</sub>, R<sub>4</sub>, R<sub>6</sub> and R<sub>8</sub> are H and R<sub>5</sub> is isopropyl or phenyl, and R<sub>7</sub> is methyl or benzyl, then for whichever of R<sub>1</sub> or R<sub>2</sub> is R or ArR-, the definition of R is limited to a saturated or unsaturated moiety having a linear, branched, or non-aromatic cyclic skeleton containing one to ten carbon atoms, zero to four nitrogen atoms, and zero to four sulfur atoms, and the carbon atoms are optionally substituted with: =S, -OH, -OR<sub>10</sub>, -O<sub>2</sub>CR<sub>10</sub>, -SH, -SR<sub>10</sub>, -SOCR<sub>10</sub>, -NH<sub>2</sub>, -NHR<sub>10</sub>, -N(R<sub>10</sub>)<sub>2</sub>, -NHCOR<sub>10</sub>, -NR<sub>10</sub>COR<sub>10</sub>, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R<sub>10</sub>, -CHO, -COR<sub>10</sub>, -CONH<sub>2</sub>, -CONHR<sub>10</sub>, -CON(R<sub>10</sub>)<sub>2</sub>, -COSH, -COSR<sub>10</sub>, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR<sub>10</sub>, -SO<sub>2</sub>R<sub>10</sub>, wherein R<sub>10</sub> is a linear, branched or cyclic, one to ten carbon saturated or unsaturated alkyl group;

R<sub>3</sub> and R<sub>4</sub> are independently selected from the group consisting of: H, R, and ArR-, or R<sub>3</sub> and R<sub>4</sub> are joined to form a ring;

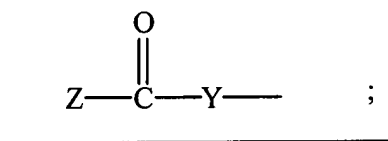
R<sub>5</sub> is selected from the group consisting of: H, R, ArR-, and Ar;

R<sub>6</sub> is selected from the group consisting of: H, R, and ArR-;

R<sub>7</sub> and R<sub>8</sub> are independently selected from the group consisting of: H, R, and ArR-;

and

R<sub>9</sub> is:



R is defined as a saturated or unsaturated moiety having a linear, branched, or non-aromatic cyclic skeleton containing one to ten carbon atoms, zero to four nitrogen atoms, zero to four oxygen atoms, and zero to four sulfur atoms, and the carbon atoms are optionally substituted with: =O, =S, -OH, -OR<sub>10</sub>, -O<sub>2</sub>CR<sub>10</sub>, -SH, -SR<sub>10</sub>, -SOCR<sub>10</sub>, -NH<sub>2</sub>, -NHR<sub>10</sub>, -N(R<sub>10</sub>)<sub>2</sub>, -NHCOR<sub>10</sub>, -NR<sub>10</sub>COR<sub>10</sub>, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R<sub>10</sub>, -CHO, -COR<sub>10</sub>, -CONH<sub>2</sub>, -CONHR<sub>10</sub>, -CON(R<sub>10</sub>)<sub>2</sub>, -COSH, -COSR<sub>10</sub>, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR<sub>10</sub>, -SO<sub>2</sub>R<sub>10</sub>, wherein R<sub>10</sub> is a linear, branched or cyclic, one to ten carbon saturated or unsaturated alkyl group, the ring formed by joining R<sub>1</sub> and R<sub>2</sub> or by joining R<sub>3</sub> and R<sub>4</sub> is a three to seven member non-aromatic cyclic skeleton within the definition of R,

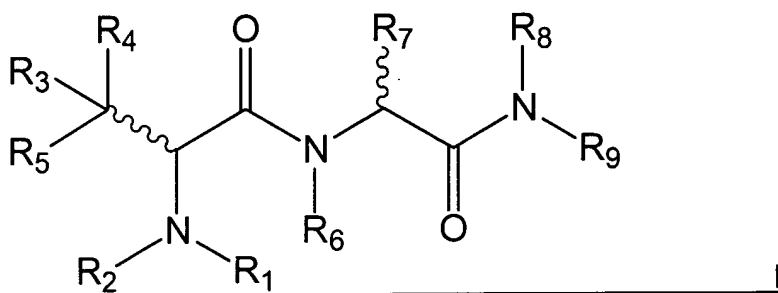
Ar is an aromatic ring selected from the group consisting of: phenyl, naphthyl, anthracyl, phenanthryl, furyl, pyrrolyl, thiophenyl, benzofuryl, benzothiophenyl, quinolinyl, isoquinolinyl, imidazolyl, thiazolyl, oxazolyl, and pyridinyl, optionally substituted with R or X;

X is defined as a moiety selected from the group consisting of: -OH, -OR, =O, =S, -O<sub>2</sub>CR, -SH, -SR, -SOCR, -NH<sub>2</sub>, -NHR, -N(R)<sub>2</sub>, -NHCOR, -NRCOR, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R, -CHO, -COR, -CONH<sub>2</sub>, -CONHR, -CON(R)<sub>2</sub>, -COSH, -COSR, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR, and -SO<sub>2</sub>R;

Y is a linear, unsaturated, two to six carbon alkyl group, optionally substituted with R, ArR-, or X; provided however if R<sub>8</sub> is H, then the optional substituents on Y are limited to R and ArR- wherein R is linear, branched or cyclic alkyl of one to ten carbon atoms and Ar is phenyl, naphthyl, anthracyl, or phenanthryl; and

Z is defined as a moiety selected from the group consisting of: -OH, -OR, -SH, -SR, -NH<sub>2</sub>, -NRCH(R<sub>11</sub>)COOH; and -NRCH(R<sub>11</sub>)COOH, wherein R<sub>11</sub> is a moiety having the formula: R, or -(CH<sub>2</sub>)<sub>n</sub>NR<sub>12</sub>R<sub>13</sub>, wherein n=1-4 and R<sub>12</sub> and R<sub>13</sub> are independently selected from the group consisting of: H; R; and -C(NH)(NH<sub>2</sub>), or pharmaceutically acceptable salt thereof.

38. (Currently Amended) ~~The compound of claim 22, wherein~~ A compound or pharmaceutically acceptable salt thereof, having the formula:



wherein:

R<sub>1</sub> and R<sub>2</sub> are independently H or CH<sub>3</sub>, provided that if either one of R<sub>1</sub> and R<sub>2</sub> is H,

each of R<sub>3</sub>, R<sub>4</sub>, R<sub>6</sub> and R<sub>8</sub> are H and R<sub>5</sub> is isopropyl or phenyl, and R<sub>7</sub> is methyl or benzyl,  
then for whichever of R<sub>1</sub> or R<sub>2</sub> is R or ArR-, the definition of R is limited to a saturated or  
unsaturated moiety having a linear, branched, or non-aromatic cyclic skeleton containing  
one to ten carbon atoms, zero to four nitrogen atoms, and zero to four sulfur atoms, and  
the carbon atoms are optionally substituted with: =S, -OH, -OR<sub>10</sub>,  
-O<sub>2</sub>CR<sub>10</sub>, -SH, -SR<sub>10</sub>, -SOCR<sub>10</sub>, -NH<sub>2</sub>, -NHR<sub>10</sub>, -N(R<sub>10</sub>)<sub>2</sub>, -NHCOR<sub>10</sub>, -NR<sub>10</sub>COR<sub>10</sub>, -I, -Br,  
-Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R<sub>10</sub>, -CHO, -COR<sub>10</sub>, -CONH<sub>2</sub>, -CONHR<sub>10</sub>, -CON(R<sub>10</sub>)<sub>2</sub>, -COSH,  
-COSR<sub>10</sub>, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR<sub>10</sub>, -SO<sub>2</sub>R<sub>10</sub>, wherein R<sub>10</sub> is a linear, branched or cyclic, one  
to ten carbon saturated or unsaturated alkyl group;

R<sub>3</sub> and R<sub>4</sub> are independently selected from the group consisting of: H, R, and ArR-,  
or R<sub>3</sub> and R<sub>4</sub> are joined to form a ring;

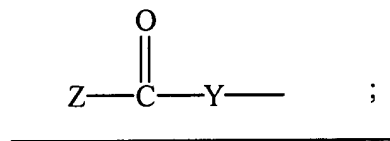
R<sub>5</sub> is selected from the group consisting of: H, R, ArR-, and Ar;

R<sub>6</sub> is selected from the group consisting of: H, R, and ArR-;

R<sub>7</sub> and R<sub>8</sub> are independently selected from the group consisting of: H, R, and ArR-;

and

R<sub>9</sub> is:



R is defined as a saturated or unsaturated moiety having a linear, branched, or  
non-aromatic cyclic skeleton containing one to ten carbon atoms, zero to four nitrogen

atoms, zero to four oxygen atoms, and zero to four sulfur atoms, and the carbon atoms are optionally substituted with: =O, =S, -OH, -OR<sub>10</sub>, -O<sub>2</sub>CR<sub>10</sub>, -SH, -SR<sub>10</sub>, -SOCR<sub>10</sub>, -NH<sub>2</sub>, -NHR<sub>10</sub>, -N(R<sub>10</sub>)<sub>2</sub>, -NHCOR<sub>10</sub>, -NR<sub>10</sub>COR<sub>10</sub>, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R<sub>10</sub>, -CHO, -COR<sub>10</sub>, -CONH<sub>2</sub>, -CONHR<sub>10</sub>, -CON(R<sub>10</sub>)<sub>2</sub>, -COSH, -COSR<sub>10</sub>, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR<sub>10</sub>, -SO<sub>2</sub>R<sub>10</sub>, wherein R<sub>10</sub> is a linear, branched or cyclic, one to ten carbon saturated or unsaturated alkyl group, the ring formed by joining R<sub>1</sub> and R<sub>2</sub> or by joining R<sub>3</sub> and R<sub>4</sub> is a three to seven member non-aromatic cyclic skeleton within the definition of R,

Ar is an aromatic ring selected from the group consisting of: phenyl, naphthyl, anthracyl, phenanthryl, furyl, pyrrolyl, thiophenyl, benzofuryl, benzothiophenyl, quinolinyl, isoquinolinyl, imidazolyl, thiazolyl, oxazolyl, and pyridinyl, optionally substituted with R or X;

X is defined as a moiety selected from the group consisting of: -OH, -OR, =O, =S, -O<sub>2</sub>CR, -SH, -SR, -SOCR, -NH<sub>2</sub>, -NHR, -N(R)<sub>2</sub>, -NHCOR, -NRCOR, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R, -CHO, -COR, -CONH<sub>2</sub>, -CONHR, -CON(R)<sub>2</sub>, -COSH, -COSR, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR, and -SO<sub>2</sub>R;

Y is a linear, unsaturated, two to six carbon alkyl group, optionally substituted with R, ArR-, or X; provided however if R<sub>8</sub> is H, then the optional substituents on Y are limited to R and ArR- wherein R is linear, branched or cyclic alkyl of one to ten carbon atoms and Ar is phenyl, naphthyl, anthracyl, or phenanthryl; and

Z is defined as a moiety selected from the group consisting of: -OH, -OR; -SH; -SR; -NH<sub>2</sub>; -NRCH(R<sub>11</sub>)COOH; and -NRCH(R<sub>11</sub>)COOH, wherein R<sub>11</sub> is a moiety having the formula: R, or -(CH<sub>2</sub>)<sub>n</sub>NR<sub>12</sub>R<sub>13</sub>, wherein n=1-4 and R<sub>12</sub> and R<sub>13</sub> are independently selected

from the group consisting of: H; R; and -C(NH)(NH<sub>2</sub>), or pharmaceutically acceptable salt thereof.

39. (Previously Presented) The compound of claim 38, wherein R<sub>1</sub> is H, and R<sub>2</sub> is -CH<sub>3</sub>.

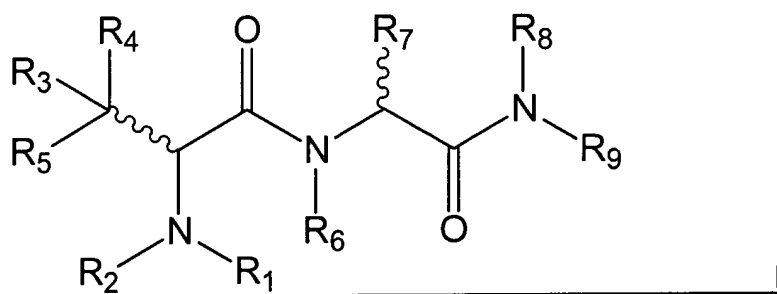
40. (Previously Presented) The compound of claim 38, wherein R<sub>5</sub> is Ar.

41. (Previously Presented) The compound of claim 38, wherein R<sub>3</sub> and R<sub>4</sub> are each -CH<sub>3</sub>.

42. (Previously Presented) The compound of claim 41, wherein R<sub>5</sub> is Ar.

43. (Previously Presented) The compound of claim 42, wherein R<sub>5</sub> is phenyl.

44. (Currently Amended) ~~The compound of claim 22, wherein~~ A compound or pharmaceutically acceptable salt thereof, having the formula:



wherein:

R<sub>1</sub> and R<sub>2</sub> are independently selected from the group consisting of: H, R, and ArR-, provided that neither R<sub>1</sub> or R<sub>2</sub> is tert-butoxycarbonyl, and provided that if either one of R<sub>1</sub> and R<sub>2</sub> is H, each of R<sub>3</sub>, R<sub>4</sub>, R<sub>6</sub> and R<sub>8</sub> are H and R<sub>5</sub> is isopropyl or phenyl, and R<sub>7</sub> is methyl or benzyl, then for whichever of R<sub>1</sub> or R<sub>2</sub> is R or ArR-, the definition of R is limited to a saturated or unsaturated moiety having a linear, branched, or non-aromatic cyclic

skeleton containing one to ten carbon atoms, zero to four nitrogen atoms, and zero to four sulfur atoms, and the carbon atoms are optionally substituted with: =S, -OH, -OR<sub>10</sub>, -O<sub>2</sub>CR<sub>10</sub>, -SH, -SR<sub>10</sub>, -SOCR<sub>10</sub>, -NH<sub>2</sub>, -NHR<sub>10</sub>, -N(R<sub>10</sub>)<sub>2</sub>, -NHCOR<sub>10</sub>, -NR<sub>10</sub>COR<sub>10</sub>, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R<sub>10</sub>, -CHO, -COR<sub>10</sub>, -CONH<sub>2</sub>, -CONHR<sub>10</sub>, -CON(R<sub>10</sub>)<sub>2</sub>, -COSH, -COSR<sub>10</sub>, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR<sub>10</sub>, -SO<sub>2</sub>R<sub>10</sub>, wherein R<sub>10</sub> is a linear, branched or cyclic, one to ten carbon saturated or unsaturated alkyl group or R<sub>1</sub> and R<sub>2</sub> are joined to form a ring;

R<sub>3</sub> and R<sub>4</sub> are independently selected from the group consisting of: H, R, and ArR-, or R<sub>3</sub> and R<sub>4</sub> are joined to form a ring;

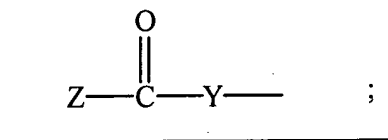
R<sub>5</sub> is selected from the group consisting of: H, R, ArR-, and Ar;

R<sub>6</sub> is H or CH<sub>3</sub>;

R<sub>7</sub> and R<sub>8</sub> are independently selected from the group consisting of: H, R, and ArR-;

and

R<sub>9</sub> is:



R is defined as a saturated or unsaturated moiety having a linear, branched, or non-aromatic cyclic skeleton containing one to ten carbon atoms, zero to four nitrogen atoms, zero to four oxygen atoms, and zero to four sulfur atoms, and the carbon atoms are optionally substituted with: =O, =S, -OH, -OR<sub>10</sub>, -O<sub>2</sub>CR<sub>10</sub>, -SH, -SR<sub>10</sub>, -SOCR<sub>10</sub>, -NH<sub>2</sub>, -NHR<sub>10</sub>, -N(R<sub>10</sub>)<sub>2</sub>, -NHCOR<sub>10</sub>, -NR<sub>10</sub>COR<sub>10</sub>, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R<sub>10</sub>, -CHO,

-COR<sub>10</sub>, -CONH<sub>2</sub>, -CONHR<sub>10</sub>, -CON(R<sub>10</sub>)<sub>2</sub>, -COSH, -COSR<sub>10</sub>, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR<sub>10</sub>, -SO<sub>2</sub>R<sub>10</sub>, wherein R<sub>10</sub> is a linear, branched or cyclic, one to ten carbon saturated or unsaturated alkyl group,

the ring formed by joining R<sub>1</sub> and R<sub>2</sub> or by joining R<sub>3</sub> and R<sub>4</sub> is a three to seven member non-aromatic cyclic skeleton within the definition of R,

Ar is an aromatic ring selected from the group consisting of: phenyl, naphthyl, anthracyl, phenanthryl, furyl, pyrrolyl, thiophenyl, benzofuryl, benzothiophenyl, quinolinyl, isoquinolinyl, imidazolyl, thiazolyl, oxazolyl, and pyridinyl, optionally substituted with R or X;

X is defined as a moiety selected from the group consisting of: -OH, -OR, =O, =S, -O<sub>2</sub>CR, -SH, -SR, -SOCR, -NH<sub>2</sub>, -NHR, -N(R)<sub>2</sub>, -NHCOR, -NRCOR, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R, -CHO, -COR, -CONH<sub>2</sub>, -CONHR, -CON(R)<sub>2</sub>, -COSH, -COSR, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR, and -SO<sub>2</sub>R;

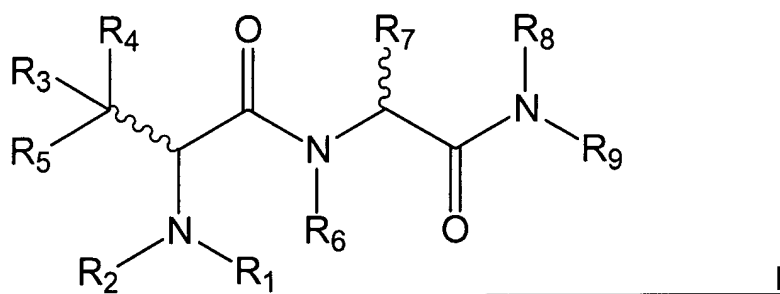
Y is a linear, unsaturated, two to six carbon alkyl group, optionally substituted with R, ArR-, or X; provided however if R<sub>8</sub> is H, then the optional substituents on Y are limited to R and ArR- wherein R is linear, branched or cyclic alkyl of one to ten carbon atoms and Ar is phenyl, naphthyl, anthracyl, or phenanthryl; and

Z is defined as a moiety selected from the group consisting of: -OH, -OR; -SH; -SR; -NH<sub>2</sub>; -NRCH(R<sub>11</sub>)COOH; and -NRCH(R<sub>11</sub>)COOH, wherein R<sub>11</sub> is a moiety having the formula: R, or -(CH<sub>2</sub>)<sub>n</sub>NR<sub>12</sub>R<sub>13</sub>, wherein n=1-4 and R<sub>12</sub> and R<sub>13</sub> are independently selected from the group consisting of: H; R; and -C(NH)(NH<sub>2</sub>), or pharmaceutically acceptable salt thereof.

45. (Previously Presented) The compound of claim 42, wherein R<sub>6</sub> is H or CH<sub>3</sub>.

46. (Previously Presented) The compound of claim 45, wherein R<sub>6</sub> is H.

47. (Currently Amended) ~~The compound of claim 22, wherein~~ A compound or pharmaceutically acceptable salt thereof, having the formula:



wherein:

R<sub>1</sub> and R<sub>2</sub> are independently selected from the group consisting of: H, R, and ArR-, provided that neither R<sub>1</sub> or R<sub>2</sub> is tert-butoxycarbonyl, and provided that if either one of R<sub>1</sub> and R<sub>2</sub> is H, each of R<sub>3</sub>, R<sub>4</sub>, R<sub>6</sub> and R<sub>8</sub> are H and R<sub>5</sub> is isopropyl or phenyl, and R<sub>7</sub> is methyl or benzyl, then for whichever of R<sub>1</sub> or R<sub>2</sub> is R or ArR-, the definition of R is limited to a saturated or unsaturated moiety having a linear, branched, or non-aromatic cyclic skeleton containing one to ten carbon atoms, zero to four nitrogen atoms, and zero to four sulfur atoms, and the carbon atoms are optionally substituted with: =S, -OH, -OR<sub>10</sub>, -O<sub>2</sub>CR<sub>10</sub>, -SH, -SR<sub>10</sub>, -SOCR<sub>10</sub>, -NH<sub>2</sub>, -NHR<sub>10</sub>, -N(R<sub>10</sub>)<sub>2</sub>, -NHCOR<sub>10</sub>, -NR<sub>10</sub>COR<sub>10</sub>, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R<sub>10</sub>, -CHO, -COR<sub>10</sub>, -CONH<sub>2</sub>, -CONHR<sub>10</sub>, -CON(R<sub>10</sub>)<sub>2</sub>, -COSH, -COSR<sub>10</sub>, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR<sub>10</sub>, -SO<sub>2</sub>R<sub>10</sub>, wherein R<sub>10</sub> is a linear, branched or cyclic, one to ten carbon saturated or unsaturated alkyl group or R<sub>1</sub> and R<sub>2</sub> are joined to form a ring;

R<sub>3</sub> and R<sub>4</sub> are independently selected from the group consisting of: H, R, and ArR-,

or R<sub>3</sub> and R<sub>4</sub> are joined to form a ring;

R<sub>5</sub> is selected from the group consisting of: H, R, ArR-, and Ar;

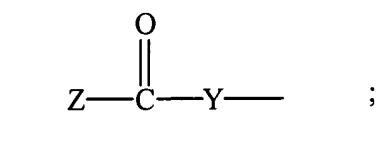
R<sub>6</sub> is selected from the group consisting of: H, R, and ArR-;

R<sub>7</sub> is independently selected from the group consisting of: H, R, and ArR-;

R<sub>8</sub> is H or CH<sub>3</sub>;

and

R<sub>9</sub> is:



R is defined as a saturated or unsaturated moiety having a linear, branched, or non-aromatic cyclic skeleton containing one to ten carbon atoms, zero to four nitrogen atoms, zero to four oxygen atoms, and zero to four sulfur atoms, and the carbon atoms are optionally substituted with: =O, =S, -OH, -OR<sub>10</sub>, -O<sub>2</sub>CR<sub>10</sub>, -SH, -SR<sub>10</sub>, -SOCR<sub>10</sub>, -NH<sub>2</sub>, -NHR<sub>10</sub>, -N(R<sub>10</sub>)<sub>2</sub>, -NHCOR<sub>10</sub>, -NR<sub>10</sub>COR<sub>10</sub>, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R<sub>10</sub>, -CHO, -COR<sub>10</sub>, -CONH<sub>2</sub>, -CONHR<sub>10</sub>, -CON(R<sub>10</sub>)<sub>2</sub>, -COSH, -COSR<sub>10</sub>, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR<sub>10</sub>, -SO<sub>2</sub>R<sub>10</sub>, wherein R<sub>10</sub> is a linear, branched or cyclic, one to ten carbon saturated or unsaturated alkyl group,

the ring formed by joining R<sub>1</sub> and R<sub>2</sub> or by joining R<sub>3</sub> and R<sub>4</sub> is a three to seven member non-aromatic cyclic skeleton within the definition of R,

Ar is an aromatic ring selected from the group consisting of: phenyl, naphthyl, anthracyl, phenanthryl, furyl, pyrrolyl, thiophenyl, benzofuryl, benzothiophenyl, quinolinyl, isoquinolyl, imidazolyl, thiazolyl, oxazolyl, and pyridinyl, optionally substituted with R or X;

X is defined as a moiety selected from the group consisting of: -OH, -OR, =O, =S, -O<sub>2</sub>CR, -SH, -SR, -SOCR, -NH<sub>2</sub>, -NHR, -N(R)<sub>2</sub>, -NHCOR, -NRCOR, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R, -CHO, -COR, -CONH<sub>2</sub>, -CONHR, -CON(R)<sub>2</sub>, -COSH, -COSR, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR, and -SO<sub>2</sub>R;

Y is a linear, unsaturated, two to six carbon alkyl group, optionally substituted with R, ArR-, or X; provided however if R<sub>8</sub> is H, then the optional substituents on Y are limited to R and ArR- wherein R is linear, branched or cyclic alkyl of one to ten carbon atoms and Ar is phenyl, naphthyl, anthracyl, or phenanthryl; and

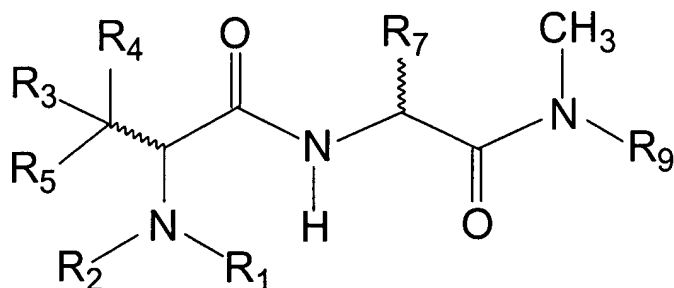
Z is defined as a moiety selected from the group consisting of: -OH, -OR; -SH; -SR; -NH<sub>2</sub>; -NRCH(R<sub>11</sub>)COOH; and -NRCH(R<sub>11</sub>)COOH, wherein R<sub>11</sub> is a moiety having the formula: R, or -(CH<sub>2</sub>)<sub>n</sub>NR<sub>12</sub>R<sub>13</sub>, wherein n=1-4 and R<sub>12</sub> and R<sub>13</sub> are independently selected from the group consisting of: H; R; and -C(NH) (NH<sub>2</sub>), or pharmaceutically acceptable salt thereof.

48. (Previously Presented) The compound of claim 42, wherein R<sub>8</sub> is H or CH<sub>3</sub>.

49. (Previously Presented) The compound of claim 45, wherein R<sub>8</sub> is H or CH<sub>3</sub>.

50. (Previously Presented) The compound of claim 49, wherein R<sub>8</sub> is CH<sub>3</sub>.

51. (Currently Amended) ~~The compound of claim 22, wherein~~ A compound or pharmaceutically acceptable salt thereof, having the formula:



wherein:

R<sub>1</sub> and R<sub>2</sub> are independently selected from the group consisting of: H, R, and ArR-, provided that neither R<sub>1</sub> or R<sub>2</sub> is tert-butoxycarbonyl, or R<sub>1</sub> and R<sub>2</sub> are joined to form a ring;

R<sub>3</sub> and R<sub>4</sub> are independently selected from the group consisting of: H, R, and ArR-, or R<sub>3</sub> and R<sub>4</sub> are joined to form a ring;

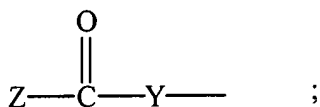
R<sub>5</sub> is selected from the group consisting of: H, R, ArR-, and Ar;

R<sub>6</sub> is H

R<sub>7</sub> is independently selected from the group consisting of: H, R, and ArR-; and

R<sub>8</sub> is CH<sub>3</sub>

R<sub>9</sub> is:



R is defined as a saturated or unsaturated moiety having a linear, branched, or non-aromatic cyclic skeleton containing one to ten carbon atoms, zero to four nitrogen atoms, zero to four oxygen atoms, and zero to four sulfur atoms, and the carbon atoms

are optionally substituted with: =O, =S, -OH, -OR<sub>10</sub>, -O<sub>2</sub>CR<sub>10</sub>, -SH, -SR<sub>10</sub>, -SOCR<sub>10</sub>, -NH<sub>2</sub>, -NHR<sub>10</sub>, -N(R<sub>10</sub>)<sub>2</sub>, -NHCOR<sub>10</sub>, -NR<sub>10</sub>COR<sub>10</sub>, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R<sub>10</sub>, -CHO, -COR<sub>10</sub>, -CONH<sub>2</sub>, -CONHR<sub>10</sub>, -CON(R<sub>10</sub>)<sub>2</sub>, -COSH, -COSR<sub>10</sub>, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR<sub>10</sub>, -SO<sub>2</sub>R<sub>10</sub>, wherein R<sub>10</sub> is a linear, branched or cyclic, one to ten carbon saturated or unsaturated alkyl group.

the ring formed by joining R<sub>1</sub> and R<sub>2</sub> or by joining R<sub>3</sub> and R<sub>4</sub> is a three to seven member non-aromatic cyclic skeleton within the definition of R,

Ar is an aromatic ring selected from the group consisting of: phenyl, naphthyl, anthracyl, phenanthryl, furyl, pyrrolyl, thiophenyl, benzofuryl, benzothiophenyl, quinolinyl, isoquinolinyl, imidazolyl, thiazolyl, oxazolyl, and pyridinyl, optionally substituted with R or X;

X is defined as a moiety selected from the group consisting of: -OH, -OR, =O, =S, -O<sub>2</sub>CR, -SH, -SR, -SOCR, -NH<sub>2</sub>, -NHR, -N(R)<sub>2</sub>, -NHCOR, -NRCOR, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R, -CHO, -COR, -CONH<sub>2</sub>, -CONHR, -CON(R)<sub>2</sub>, -COSH, -COSR, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR, and -SO<sub>2</sub>R;

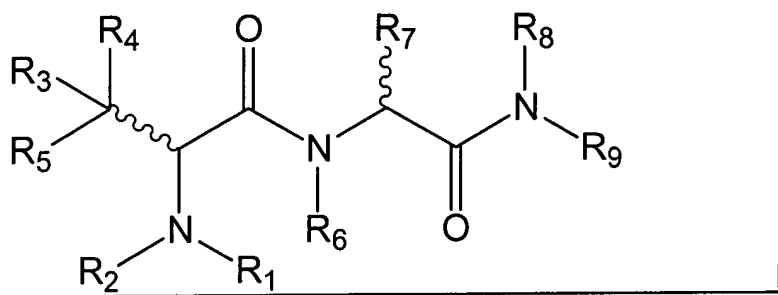
Y is a linear, unsaturated, two to six carbon alkyl group, optionally substituted with R, ArR-, or X; provided however if R<sub>8</sub> is H, then the optional substituents on Y are limited to R and ArR- wherein R is linear, branched or cyclic alkyl of one to ten carbon atoms and Ar is phenyl, naphthyl, anthracyl, or phenanthryl; and

Z is defined as a moiety selected from the group consisting of: -OH, -OR; -SH; -SR; -NH<sub>2</sub>; -NRCH(R<sub>11</sub>)COOH; and -NRCH(R<sub>11</sub>)COOH, wherein R<sub>11</sub> is a moiety having the formula: R, or -(CH<sub>2</sub>)<sub>n</sub>NR<sub>12</sub>R<sub>13</sub>, wherein n=1-4 and R<sub>12</sub> and R<sub>13</sub> are independently

selected from the group consisting of: H; R; and -C(NH) (NH<sub>2</sub>), or pharmaceutically acceptable salt thereof.

52. (Previously Presented) The compound of claim 42, wherein R<sub>6</sub> is H and R<sub>8</sub> is CH<sub>3</sub>.

53. (Currently Amended) ~~The compound of claim 22, wherein~~ A compound or pharmaceutically acceptable salt thereof, having the formula:



wherein:

R<sub>1</sub> and R<sub>2</sub> are independently selected from the group consisting of: H, R, and ArR-, provided that neither R<sub>1</sub> or R<sub>2</sub> is tert-butoxycarbonyl, or R<sub>1</sub> and R<sub>2</sub> are joined to form a ring;

R<sub>3</sub> and R<sub>4</sub> are independently selected from the group consisting of: H, R, and ArR-, or R<sub>3</sub> and R<sub>4</sub> are joined to form a ring;

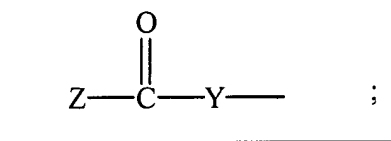
R<sub>5</sub> is selected from the group consisting of: H, R, ArR-, and Ar;

R<sub>6</sub> is selected from the group consisting of: H, R, and ArR-;

R<sub>7</sub> is a three to six carbon atom, branched alkyl group;

R<sub>8</sub> is independently selected from the group consisting of: H, R, and ArR-; and

R<sub>9</sub> is:



R is defined as a saturated or unsaturated moiety having a linear, branched, or non-aromatic cyclic skeleton containing one to ten carbon atoms, zero to four nitrogen atoms, zero to four oxygen atoms, and zero to four sulfur atoms, and the carbon atoms are optionally substituted with: =O, =S, -OH, -OR<sub>10</sub>, -O<sub>2</sub>CR<sub>10</sub>, -SH, -SR<sub>10</sub>, -SOCR<sub>10</sub>, -NH<sub>2</sub>, -NHR<sub>10</sub>, -N(R<sub>10</sub>)<sub>2</sub>, -NHCOR<sub>10</sub>, -NR<sub>10</sub>COR<sub>10</sub>, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R<sub>10</sub>, -CHO, -COR<sub>10</sub>, -CONH<sub>2</sub>, -CONHR<sub>10</sub>, -CON(R<sub>10</sub>)<sub>2</sub>, -COSH, -COSR<sub>10</sub>, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR<sub>10</sub>, -SO<sub>2</sub>R<sub>10</sub>, wherein R<sub>10</sub> is a linear, branched or cyclic, one to ten carbon saturated or unsaturated alkyl group.

the ring formed by joining R<sub>1</sub> and R<sub>2</sub> or by joining R<sub>3</sub> and R<sub>4</sub> is a three to seven member non-aromatic cyclic skeleton within the definition of R.

Ar is an aromatic ring selected from the group consisting of: phenyl, naphthyl, anthracyl, phenanthryl, furyl, pyrrolyl, thiophenyl, benzofuryl, benzothiophenyl, quinolinyl, isoquinolinyl, imidazolyl, thiazolyl, oxazolyl, and pyridinyl, optionally substituted with R or X;

X is defined as a moiety selected from the group consisting of: -OH, -OR, =O, =S, -O<sub>2</sub>CR, -SH, -SR, -SOCR, -NH<sub>2</sub>, -NHR, -N(R)<sub>2</sub>, -NHCOR, -NRCOR, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R, -CHO, -COR, -CONH<sub>2</sub>, -CONHR, -CON(R)<sub>2</sub>, -COSH, -COSR, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR, and -SO<sub>2</sub>R;

Y is a linear, unsaturated, two to six carbon alkyl group, optionally substituted with R, ArR-, or X; provided however if R<sub>8</sub> is H, then the optional substituents on Y are limited to R and ArR- wherein R is linear, branched or cyclic alkyl of one to ten carbon atoms and Ar is phenyl, naphthyl, anthracyl, or phenanthryl; and

Z is defined as a moiety selected from the group consisting of: -OH, -OR; -SH; -SR; -NH<sub>2</sub>; -NRCH(R<sub>11</sub>)COOH; and -NRCH(R<sub>11</sub>)COOH, wherein R<sub>11</sub> is a moiety having the formula: R, or -(CH<sub>2</sub>)<sub>n</sub>NR<sub>12</sub>R<sub>13</sub>, wherein n=1-4 and R<sub>12</sub> and R<sub>13</sub> are independently selected from the group consisting of: H; R; and -C(NH) (NH<sub>2</sub>), or pharmaceutically acceptable salt thereof.

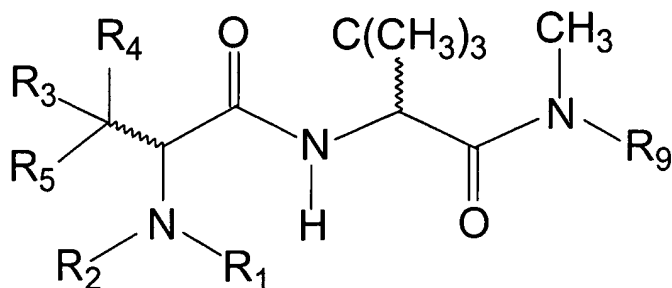
54. (Previously Presented) The compound of claim 42, wherein R<sub>7</sub> is a three to six carbon atom, branched alkyl group.

55. (Previously Presented) The compound of claim 45, wherein R<sub>7</sub> is a three to six carbon atom, branched alkyl group.

56. (Previously Presented) The compound of claim 49, wherein R<sub>7</sub> is a three to six carbon atom, branched alkyl group.

57. (Previously Presented) The compound of claim 53, wherein R<sub>7</sub> is -C(CH<sub>3</sub>)<sub>3</sub>.

58. (Currently Amended) ~~The compound of claim 22, wherein~~ A compound or pharmaceutically acceptable salt thereof, having the formula:



wherein:

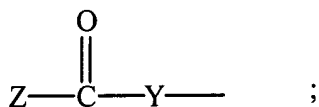
R<sub>1</sub> and R<sub>2</sub> are independently selected from the group consisting of: H, R, and ArR-, provided that neither R<sub>1</sub> or R<sub>2</sub> is tert-butoxycarbonyl, or R<sub>1</sub> and R<sub>2</sub> are joined to form a ring;

R<sub>3</sub> and R<sub>4</sub> are independently selected from the group consisting of: H, R, and ArR-, or R<sub>3</sub> and R<sub>4</sub> are joined to form a ring;

R<sub>5</sub> is selected from the group consisting of: H, R, ArR-, and Ar;

R<sub>6</sub> is H, R<sub>7</sub> is -C(CH<sub>3</sub>)<sub>3</sub>, and R<sub>8</sub> is -CH<sub>3</sub>; and

R<sub>9</sub> is:



R is defined as a saturated or unsaturated moiety having a linear, branched, or non-aromatic cyclic skeleton containing one to ten carbon atoms, zero to four nitrogen atoms, zero to four oxygen atoms, and zero to four sulfur atoms, and the carbon atoms are optionally substituted with: =O, =S, -OH, -OR<sub>10</sub>, -O<sub>2</sub>CR<sub>10</sub>, -SH, -SR<sub>10</sub>, -SOCR<sub>10</sub>, -NH<sub>2</sub>,

-NHR<sub>10</sub>, -N(R<sub>10</sub>)<sub>2</sub>, -NHCOR<sub>10</sub>, -NR<sub>10</sub>COR<sub>10</sub>, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R<sub>10</sub>, -CHO, -COR<sub>10</sub>, -CONH<sub>2</sub>, -CONHR<sub>10</sub>, -CON(R<sub>10</sub>)<sub>2</sub>, -COSH, -COSR<sub>10</sub>, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR<sub>10</sub>, -SO<sub>2</sub>R<sub>10</sub>, wherein R<sub>10</sub> is a linear, branched or cyclic, one to ten carbon saturated or unsaturated alkyl group,

the ring formed by joining R<sub>1</sub> and R<sub>2</sub> or by joining R<sub>3</sub> and R<sub>4</sub> is a three to seven member non-aromatic cyclic skeleton within the definition of R,

Ar is an aromatic ring selected from the group consisting of: phenyl, naphthyl, anthracyl, phenanthryl, furyl, pyrrolyl, thiophenyl, benzofuryl, benzothiophenyl, quinolinyl, isoquinolinyl, imidazolyl, thiazolyl, oxazolyl, and pyridinyl; optionally substituted with R or X;

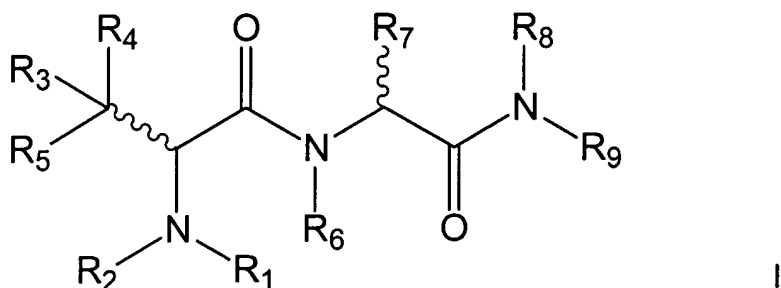
X is defined as a moiety selected from the group consisting of: -OH, -OR, =O, =S, -O<sub>2</sub>CR, -SH, -SR, -SOCR, -NH<sub>2</sub>, -NHR, -N(R)<sub>2</sub>, -NHCOR, -NRCOR, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R, -CHO, -COR, -CONH<sub>2</sub>, -CONHR, -CON(R)<sub>2</sub>, -COSH, -COSR, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR, and -SO<sub>2</sub>R;

Y is a linear, unsaturated, two to six carbon alkyl group, optionally substituted with R, ArR-, or X; provided however if R<sub>8</sub> is H, then the optional substituents on Y are limited to R and ArR- wherein R is linear, branched or cyclic alkyl of one to ten carbon atoms and Ar is phenyl, naphthyl, anthracyl, or phenanthryl; and

Z is defined as a moiety selected from the group consisting of: -OH, -OR; -SH; -SR; -NH<sub>2</sub>; -NRCH(R<sub>11</sub>)COOH; and -NRCH(R<sub>11</sub>)COOH, wherein R<sub>11</sub> is a moiety having the formula: R, or -(CH<sub>2</sub>)<sub>n</sub>NR<sub>12</sub>R<sub>13</sub>, wherein n=1-4 and R<sub>12</sub> and R<sub>13</sub> are independently selected from the group consisting of: H; R; and -C(NH)(NH<sub>2</sub>), or pharmaceutically

acceptable salt thereof.

59. (Previously Presented) A compound or pharmaceutically acceptable salt thereof, having the formula:



wherein:

$R_1$  and  $R_2$  are independently selected from the group consisting of: H, R, and  $ArR-$ , provided that neither  $R_1$  or  $R_2$  is tert-butoxycarbonyl, or  $R_1$  and  $R_2$  are joined to form a ring;

$R_3$  and  $R_4$  are independently selected from the group consisting of: H, R, and  $ArR-$ , or  $R_3$  and  $R_4$  are joined to form a ring;

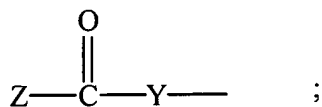
$R_5$  is selected from the group consisting of: H, R,  $ArR-$ , and Ar;

$R_6$  is selected from the group consisting of: H, R, and  $ArR-$ ;

$R_7$  and  $R_8$  are independently selected from the group consisting of: H, R, and  $ArR-$ ;

and

$R_9$  is:



R is defined as a saturated or unsaturated moiety having a linear, branched, or non-aromatic cyclic skeleton containing one to ten carbon atoms, zero to four nitrogen atoms, zero to four oxygen atoms, and zero to four sulfur atoms, and the carbon atoms are optionally substituted with: =O, =S, -OH, -OR<sub>10</sub>, -O<sub>2</sub>CR<sub>10</sub>, -SH, -SR<sub>10</sub>, -SOCR<sub>10</sub>, -NH<sub>2</sub>, -NHR<sub>10</sub>, -N(R<sub>10</sub>)<sub>2</sub>, -NHCOR<sub>10</sub>, -NR<sub>10</sub>COR<sub>10</sub>, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R<sub>10</sub>, -CHO, -COR<sub>10</sub>, -CONH<sub>2</sub>, -CONHR<sub>10</sub>, -CON(R<sub>10</sub>)<sub>2</sub>, -COSH, -COSR<sub>10</sub>, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR<sub>10</sub>, -SO<sub>2</sub>R<sub>10</sub>, wherein R<sub>10</sub> is a linear, branched or cyclic, one to ten carbon saturated or unsaturated alkyl group,

the ring formed by joining R<sub>1</sub> and R<sub>2</sub> or by joining R<sub>3</sub> and R<sub>4</sub> is a three to seven member non-aromatic cyclic skeleton within the definition of R,

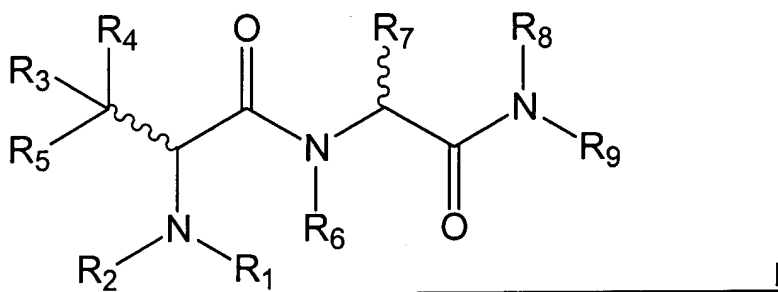
X is defined as a moiety selected from the group consisting of: -OH, -OR, =O, =S, -O<sub>2</sub>CR, -SH, -SR, -SOCR, -NH<sub>2</sub>, -NHR, -N(R)<sub>2</sub>, -NHCOR, -NRCOR, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R, -CHO, -COR, -CONH<sub>2</sub>, -CONHR, -CON(R)<sub>2</sub>, -COSH, -COSR, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR, and -SO<sub>2</sub>R;

Ar is an aromatic ring selected from the group consisting of: phenyl, naphthyl, anthracyl, phenanthryl, furyl, pyrrolyl, thiophenyl, benzofuryl, benzothiophenyl, quinolinyl, isoquinolinyl, imidazolyl, thiazolyl, oxazolyl, and pyridinyl, optionally substituted with R or X;

Y is a linear, unsaturated, two to six carbon alkyl group, optionally substituted with R, ArR-, or X; provided however if R<sub>8</sub> is H, then the optional substituents on Y are limited to R and ArR- wherein R is linear, branched or cyclic alkyl of one to ten carbon atoms and Ar is phenyl, naphthyl, anthracyl, or phenanthryl; and

Z is -NHCH(R<sub>11</sub>)COOH or -NCH<sub>3</sub>CH(R<sub>11</sub>)COOH, wherein R<sub>11</sub> is R; or,  
-(CH<sub>2</sub>)<sub>n</sub>NHC(NH)(NH<sub>2</sub>).

60. (Currently Amended) ~~The compound of claim 22, wherein~~ A compound or pharmaceutically acceptable salt thereof, having the formula:



wherein:

R<sub>1</sub> and R<sub>2</sub> are independently selected from the group consisting of: H, R, and ArR-, provided that neither R<sub>1</sub> or R<sub>2</sub> is tert-butoxycarbonyl, and provided that if either one of R<sub>1</sub> and R<sub>2</sub> is H, each of R<sub>3</sub>, R<sub>4</sub>, R<sub>6</sub> and R<sub>8</sub> are H and R<sub>5</sub> is isopropyl or phenyl, and R<sub>7</sub> is methyl or benzyl, then for whichever of R<sub>1</sub> or R<sub>2</sub> is R or ArR-, the definition of R is limited to a saturated or unsaturated moiety having a linear, branched, or non-aromatic cyclic skeleton containing one to ten carbon atoms, zero to four nitrogen atoms, and zero to four sulfur atoms, and the carbon atoms are optionally substituted with: =S, -OH, -OR<sub>10</sub>, -O<sub>2</sub>CR<sub>10</sub>, -SH, -SR<sub>10</sub>, -SOCR<sub>10</sub>, -NH<sub>2</sub>, -NHR<sub>10</sub>, -N(R<sub>10</sub>)<sub>2</sub>, -NHCOR<sub>10</sub>, -NR<sub>10</sub>COR<sub>10</sub>, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R<sub>10</sub>, -CHO, -COR<sub>10</sub>, -CONH<sub>2</sub>, -CONHR<sub>10</sub>, -CON(R<sub>10</sub>)<sub>2</sub>, -COSH, -COSR<sub>10</sub>, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR<sub>10</sub>, -SO<sub>2</sub>R<sub>10</sub>, wherein R<sub>10</sub> is a linear, branched or cyclic, one to ten carbon saturated or unsaturated alkyl group or R<sub>1</sub> and R<sub>2</sub> are joined to form a ring;

R<sub>3</sub> and R<sub>4</sub> are independently selected from the group consisting of: H, R, and ArR-,

or R<sub>3</sub> and R<sub>4</sub> are joined to form a ring;

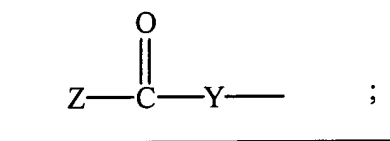
R<sub>5</sub> is selected from the group consisting of: H, R, ArR-, and Ar;

R<sub>6</sub> is selected from the group consisting of: H, R, and ArR-;

R<sub>7</sub> and R<sub>8</sub> are independently selected from the group consisting of: H, R, and ArR-;

and

R<sub>9</sub> is:



R is defined as a saturated or unsaturated moiety having a linear, branched, or non-aromatic cyclic skeleton containing one to ten carbon atoms, zero to four nitrogen atoms, zero to four oxygen atoms, and zero to four sulfur atoms, and the carbon atoms are optionally substituted with: =O, =S, -OH, -OR<sub>10</sub>, -O<sub>2</sub>CR<sub>10</sub>, -SH, -SR<sub>10</sub>, -SOCR<sub>10</sub>, -NH<sub>2</sub>, -NHR<sub>10</sub>, -N(R<sub>10</sub>)<sub>2</sub>, -NHCOR<sub>10</sub>, -NR<sub>10</sub>COR<sub>10</sub>, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R<sub>10</sub>, -CHO, -COR<sub>10</sub>, -CONH<sub>2</sub>, -CONHR<sub>10</sub>, -CON(R<sub>10</sub>)<sub>2</sub>, -COSH, -COSR<sub>10</sub>, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR<sub>10</sub>, -SO<sub>2</sub>R<sub>10</sub>, wherein R<sub>10</sub> is a linear, branched or cyclic, one to ten carbon saturated or unsaturated alkyl group,

the ring formed by joining R<sub>1</sub> and R<sub>2</sub> or by joining R<sub>3</sub> and R<sub>4</sub> is a three to seven member non-aromatic cyclic skeleton within the definition of R,

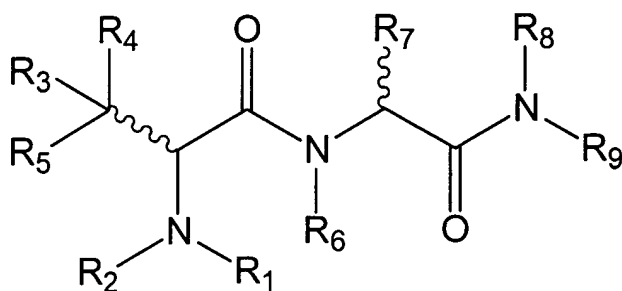
Ar is an aromatic ring selected from the group consisting of: phenyl, naphthyl, anthracyl, phenanthryl, furyl, pyrrolyl, thiophenyl, benzofuryl, benzothiophenyl, quinolinyl, isoquinolyl, imidazolyl, thiazolyl, oxazolyl, and pyridinyl, optionally substituted with R or X;

X is defined as a moiety selected from the group consisting of: -OH, -OR, =O, =S, -O<sub>2</sub>CR, -SH, -SR, -SOCR, -NH<sub>2</sub>, -NHR, -N(R)<sub>2</sub>, -NHCOR, -NRCOR, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R, -CHO, -COR, -CONH<sub>2</sub>, -CONHR, -CON(R)<sub>2</sub>, -COSH, -COSR, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR, and -SO<sub>2</sub>R;

Y is a linear, unsaturated, two to six carbon alkyl group, optionally substituted with R, ArR-, or X; provided however if R<sub>8</sub> is H, then the optional substituents on Y are limited to R and ArR- wherein R is linear, branched or cyclic alkyl of one to ten carbon atoms and Ar is phenyl, naphthyl, anthracyl, or phenanthryl; and

Z is -OR<sub>14</sub> in which R<sub>14</sub> is a linear or branched one to six carbon alkyl group.

61. (Currently Amended) A compound or pharmaceutically acceptable salt thereof, having the formula:



wherein:

R<sub>1</sub> and R<sub>2</sub> are independently selected from the group consisting of: H, R, and ArR-, provided that neither R<sub>1</sub> or R<sub>2</sub> is tert-butoxycarbonyl, or R<sub>1</sub> and R<sub>2</sub> are joined to form a

ring;

R<sub>3</sub> and R<sub>4</sub> are independently selected from the group consisting of: H, R, and ArR-,  
or R<sub>3</sub> and R<sub>4</sub> are joined to form a ring;

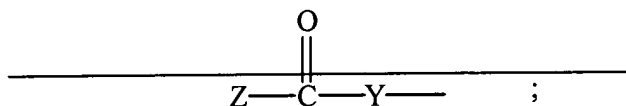
R<sub>5</sub> is selected from the group consisting of: H, R, ArR-, and Ar;

R<sub>6</sub> is selected from the group consisting of: H, R, and ArR-;

R<sub>7</sub> and R<sub>8</sub> are independently selected from the group consisting of: H, R, and ArR-;

and

R<sub>9</sub> is [[::]] Y-COOH;



R is defined as a saturated or unsaturated moiety having a linear, branched, or non-aromatic cyclic skeleton containing one to ten carbon atoms, zero to four nitrogen atoms, zero to four oxygen atoms, and zero to four sulfur atoms, and the carbon atoms are optionally substituted with: =O, =S, -OH, -OR<sub>10</sub>, -O<sub>2</sub>CR<sub>10</sub>, -SH, -SR<sub>10</sub>, -SOCR<sub>10</sub>, -NH<sub>2</sub>, -NHR<sub>10</sub>, -N(R<sub>10</sub>)<sub>2</sub>, -NHCOR<sub>10</sub>, -NR<sub>10</sub>COR<sub>10</sub>, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R<sub>10</sub>, -CHO, -COR<sub>10</sub>, -CONH<sub>2</sub>, -CONHR<sub>10</sub>, -CON(R<sub>10</sub>)<sub>2</sub>, -COSH, -COSR<sub>10</sub>, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR<sub>10</sub>, -SO<sub>2</sub>R<sub>10</sub>, wherein R<sub>10</sub> is a linear, branched or cyclic, one to ten carbon saturated or unsaturated alkyl group,

the ring formed by joining R<sub>1</sub> and R<sub>2</sub> or by joining R<sub>3</sub> and R<sub>4</sub> is a three to seven member non-aromatic cyclic skeleton within the definition of R,

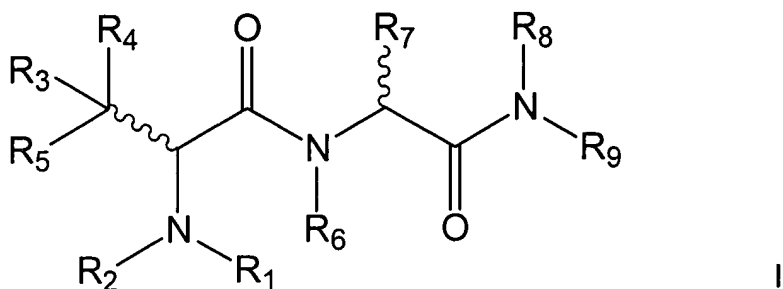
X is defined as a moiety selected from the group consisting of: -OH, -OR, =O, =S, -O<sub>2</sub>CR, -SH, -SR, -SOCR, -NH<sub>2</sub>, -NHR, -N(R)<sub>2</sub>, -NHCOR, -NRCOR, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R, -CHO, -COR, -CONH<sub>2</sub>, -CONHR, -CON(R)<sub>2</sub>, -COSH, -COSR, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR, and -SO<sub>2</sub>R;

Ar is an aromatic ring selected from the group consisting of: phenyl, naphthyl, anthracyl, phenanthryl, furyl, pyrrolyl, thiophenyl, benzofuryl, benzothiophenyl, quinolinyl, isoquinolinyl, imidazolyl, thiazolyl, oxazolyl, and pyridinyl, optionally substituted with R or X;  
and

Y is a linear, unsaturated, two to six carbon alkyl group, optionally substituted with R, ArR-, or X; provided however if R<sub>8</sub> is H, then the optional substituents on Y are limited to R and ArR- wherein R is linear, branched or cyclic alkyl of one to ten carbon atoms and Ar is phenyl, naphthyl, anthracyl, or phenanthryl; ~~and~~

~~Z is -OH.~~

62. (Currently Amended) A compound or pharmaceutically acceptable salt thereof, having the formula:



wherein:

R<sub>1</sub> and R<sub>2</sub> are independently selected from the group consisting of: H, R, and ArR-,

provided that neither  $R_1$  or  $R_2$  is tert-butoxycarbonyl, or  $R_1$  and  $R_2$  are joined to form a ring;

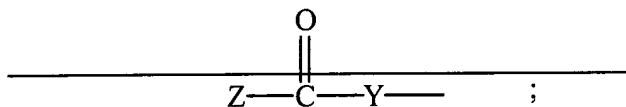
$R_3$  and  $R_4$  are independently selected from the group consisting of: H, R, and ArR-, or  $R_3$  and  $R_4$  are joined to form a ring;

$R_5$  is selected from the group consisting of: H, R, ArR-, and Ar;

$R_6$  is selected from the group consisting of: H, R, and ArR-;

$R_7$  and  $R_8$  are independently selected from the group consisting of: H, R, and ArR-; and

$R_9$  is  $[[\text{:}]] \text{ Y-COOCH}_3$ ;



R is defined as a saturated or unsaturated moiety having a linear, branched, or non-aromatic cyclic skeleton containing one to ten carbon atoms, zero to four nitrogen atoms, zero to four oxygen atoms, and zero to four sulfur atoms, and the carbon atoms are optionally substituted with: =O, =S, -OH, -OR<sub>10</sub>, -O<sub>2</sub>CR<sub>10</sub>, -SH, -SR<sub>10</sub>, -SOCR<sub>10</sub>, -NH<sub>2</sub>, -NHR<sub>10</sub>, -N(R<sub>10</sub>)<sub>2</sub>, -NHCOR<sub>10</sub>, -NR<sub>10</sub>COR<sub>10</sub>, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R<sub>10</sub>, -CHO, -COR<sub>10</sub>, -CONH<sub>2</sub>, -CONHR<sub>10</sub>, -CON(R<sub>10</sub>)<sub>2</sub>, -COSH, -COSR<sub>10</sub>, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR<sub>10</sub>, -SO<sub>2</sub>R<sub>10</sub>, wherein R<sub>10</sub> is a linear, branched or cyclic, one to ten carbon saturated or unsaturated alkyl group,

the ring formed by joining  $R_1$  and  $R_2$  or by joining  $R_3$  and  $R_4$  is a three to seven

member non-aromatic cyclic skeleton within the definition of R,

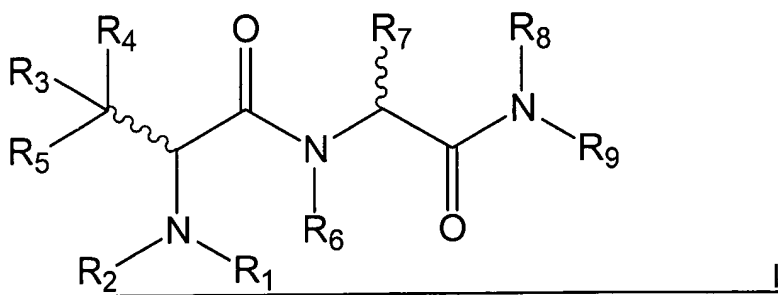
X is defined as a moiety selected from the group consisting of: -OH, -OR, =O, =S, -O<sub>2</sub>CR, -SH, -SR, -SOCR, -NH<sub>2</sub>, -NHR, -N(R)<sub>2</sub>, -NHCOR, -NRCOR, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R, -CHO, -COR, -CONH<sub>2</sub>, -CONHR, -CON(R)<sub>2</sub>, -COSH, -COSR, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR, and -SO<sub>2</sub>R;

Ar is an aromatic ring selected from the group consisting of: phenyl, naphthyl, anthracyl, phenanthryl, furyl, pyrrolyl, thiophenyl, benzofuryl, benzothiophenyl, quinoliny, isoquinolyl, imidazolyl, thiazolyl, oxazolyl, and pyridinyl, optionally substituted with R or X;  
and

Y is a linear, unsaturated, two to six carbon alkyl group, optionally substituted with R, ArR-, or X; provided however if R<sub>8</sub> is H, then the optional substituents on Y are limited to R and ArR- wherein R is linear, branched or cyclic alkyl of one to ten carbon atoms and Ar is phenyl, naphthyl, anthracyl, or phenanthryl; ~~and~~

~~Z is -OCH<sub>3</sub>.~~

63. (Currently Amended) ~~The compound of claim 22, wherein~~ A compound or pharmaceutically acceptable salt thereof, having the formula:



wherein:

R<sub>1</sub> and R<sub>2</sub> are independently selected from the group consisting of: H, R, and ArR-, provided that neither R<sub>1</sub> or R<sub>2</sub> is tert-butoxycarbonyl, and provided that if either one of R<sub>1</sub> and R<sub>2</sub> is H, each of R<sub>3</sub>, R<sub>4</sub>, R<sub>6</sub> and R<sub>8</sub> are H and R<sub>5</sub> is isopropyl or phenyl, and R<sub>7</sub> is methyl or benzyl, then for whichever of R<sub>1</sub> or R<sub>2</sub> is R or ArR-, the definition of R is limited to a saturated or unsaturated moiety having a linear, branched, or non-aromatic cyclic skeleton containing one to ten carbon atoms, zero to four nitrogen atoms, and zero to four sulfur atoms, and the carbon atoms are optionally substituted with: =S, -OH, -OR<sub>10</sub>, -O<sub>2</sub>CR<sub>10</sub>, -SH, -SR<sub>10</sub>, -SOCR<sub>10</sub>, -NH<sub>2</sub>, -NHR<sub>10</sub>, -N(R<sub>10</sub>)<sub>2</sub>, -NHCOR<sub>10</sub>, -NR<sub>10</sub>COR<sub>10</sub>, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R<sub>10</sub>, -CHO, -COR<sub>10</sub>, -CONH<sub>2</sub>, -CONHR<sub>10</sub>, -CON(R<sub>10</sub>)<sub>2</sub>, -COSH, -COSR<sub>10</sub>, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR<sub>10</sub>, -SO<sub>2</sub>R<sub>10</sub>, wherein R<sub>10</sub> is a linear, branched or cyclic, one to ten carbon saturated or unsaturated alkyl group or R<sub>1</sub> and R<sub>2</sub> are joined to form a ring;

R<sub>3</sub> and R<sub>4</sub> are independently selected from the group consisting of: H, R, and ArR-, or R<sub>3</sub> and R<sub>4</sub> are joined to form a ring;

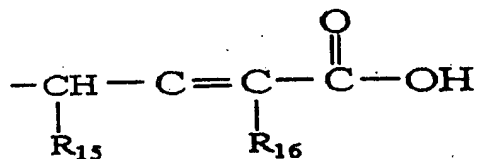
R<sub>5</sub> is selected from the group consisting of: H, R, ArR-, and Ar;

R<sub>6</sub> is selected from the group consisting of: H, R, and ArR-;

R<sub>7</sub> and R<sub>8</sub> are independently selected from the group consisting of: H, R, and ArR-;

and

R<sub>9</sub> has the formula:



wherein  $R_{15}$  is selected from the group consisting of methyl, ethyl, n-propyl, isopropyl, tert-butyl, iso-butyl, and sec-butyl; and  $R_{16}$  is selected from the group consisting of H, methyl, ethyl, propyl, iso-propyl, n-butyl, iso-butyl and sec-butyl;

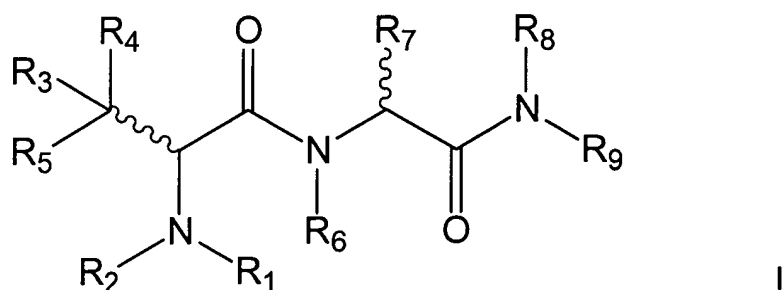
R is defined as a saturated or unsaturated moiety having a linear, branched, or non-aromatic cyclic skeleton containing one to ten carbon atoms, zero to four nitrogen atoms, zero to four oxygen atoms, and zero to four sulfur atoms, and the carbon atoms are optionally substituted with: =O, =S, -OH, -OR<sub>10</sub>, -O<sub>2</sub>CR<sub>10</sub>, -SH, -SR<sub>10</sub>, -SOCR<sub>10</sub>, -NH<sub>2</sub>, -NHR<sub>10</sub>, -N(R<sub>10</sub>)<sub>2</sub>, -NHCOR<sub>10</sub>, -NR<sub>10</sub>COR<sub>10</sub>, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R<sub>10</sub>, -CHO, -COR<sub>10</sub>, -CONH<sub>2</sub>, -CONHR<sub>10</sub>, -CON(R<sub>10</sub>)<sub>2</sub>, -COSH, -COSR<sub>10</sub>, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR<sub>10</sub>, -SO<sub>2</sub>R<sub>10</sub>, wherein R<sub>10</sub> is a linear, branched or cyclic, one to ten carbon saturated or unsaturated alkyl group,

the ring formed by joining R<sub>1</sub> and R<sub>2</sub> or by joining R<sub>3</sub> and R<sub>4</sub> is a three to seven member non-aromatic cyclic skeleton within the definition of R,

Ar is an aromatic ring selected from the group consisting of: phenyl, naphthyl, anthracyl, phenanthryl, furyl, pyrrolyl, thiophenyl, benzofuryl, benzothiophenyl, quinolinyl, isoquinolyl, imidazolyl, thiazolyl, oxazolyl, and pyridinyl, optionally substituted with R or X;  
and

X is defined as a moiety selected from the group consisting of: -OH, -OR, =O, =S, -O<sub>2</sub>CR, -SH, -SR, -SOCR, -NH<sub>2</sub>, -NHR, -N(R)<sub>2</sub>, -NHCOR, -NRCOR, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R, -CHO, -COR, -CONH<sub>2</sub>, -CONHR, -CON(R)<sub>2</sub>, -COSH, -COSR, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR, and -SO<sub>2</sub>R.

64. (Currently Amended) A compound or pharmaceutically acceptable salt thereof, having the formula:



wherein:

$R_1$  and  $R_2$  are independently selected from the group consisting of: H, R, and  $ArR-$ , provided that neither  $R_1$  or  $R_2$  is tert-butoxycarbonyl, or  $R_1$  and  $R_2$  are joined to form a ring;

$R_3$  and  $R_4$  are independently selected from the group consisting of: H, R, and  $ArR-$ , or  $R_3$  and  $R_4$  are joined to form a ring;

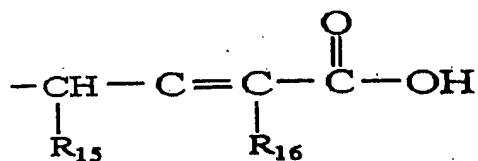
$R_5$  is selected from the group consisting of: H, R,  $ArR-$ , and Ar;

$R_6$  is selected from the group consisting of: H, R, and  $ArR-$ ;

$R_7$  and  $R_8$  are independently selected from the group consisting of: H, R, and  $ArR-$ ;

and

$R_9$  has the formula:



wherein R<sub>15</sub> is selected from the group consisting of methyl, ethyl, n-propyl, isopropyl, tert-butyl, iso-butyl, and sec-butyl; and R<sub>16</sub> is methyl;

R is defined as a saturated or unsaturated moiety having a linear, branched, or non-aromatic cyclic skeleton containing one to ten carbon atoms, zero to four nitrogen atoms, zero to four oxygen atoms, and zero to four sulfur atoms, and the carbon atoms are optionally substituted with: =O, =S, -OH, -OR<sub>10</sub>, -O<sub>2</sub>CR<sub>10</sub>, -SH, -SR<sub>10</sub>, -SOCR<sub>10</sub>, -NH<sub>2</sub>, -NHR<sub>10</sub>, -N(R<sub>10</sub>)<sub>2</sub>, -NHCOR<sub>10</sub>, -NR<sub>10</sub>COR<sub>10</sub>, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R<sub>10</sub>, -CHO, -COR<sub>10</sub>, -CONH<sub>2</sub>, -CONHR<sub>10</sub>, -CON(R<sub>10</sub>)<sub>2</sub>, -COSH, -COSR<sub>10</sub>, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR<sub>10</sub>, -SO<sub>2</sub>R<sub>10</sub>, wherein R<sub>10</sub> is a linear, branched or cyclic, one to ten carbon saturated or unsaturated alkyl group,

the ring formed by joining R<sub>1</sub> and R<sub>2</sub> or by joining R<sub>3</sub> and R<sub>4</sub> is a three to seven member non-aromatic cyclic skeleton within the definition of R,

X is defined as a moiety selected from the group consisting of: -OH, -OR, =O, =S, -O<sub>2</sub>CR, -SH, -SR, -SOCR, -NH<sub>2</sub>, -NHR, -N(R)<sub>2</sub>, -NHCOR, -NRCOR, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R, -CHO, -COR, -CONH<sub>2</sub>, -CONHR, -CON(R)<sub>2</sub>, -COSH, -COSR, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR, and -SO<sub>2</sub>R; and

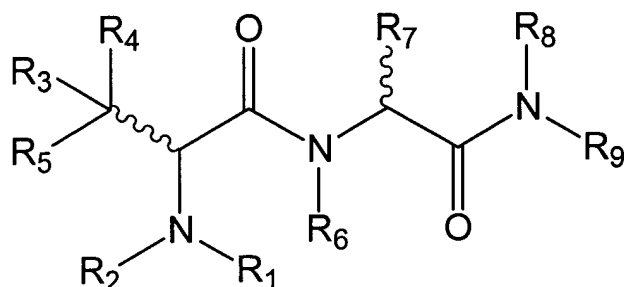
Ar is an aromatic ring selected from the group consisting of: phenyl, naphthyl, anthracyl, phenanthryl, furyl, pyrrolyl, thiophenyl, benzofuryl, benzothiophenyl, quinolinyl,

isoquinolyl, imidazolyl, thiazolyl, oxazolyl, and pyridinyl, optionally substituted with R or X[[:]]

~~Y is a linear, unsaturated, two to six carbon alkyl group, optionally substituted with R, ArR, or X; provided however if R<sub>8</sub> is H, then the optional substituents on Y are limited to R and ArR wherein R is linear, branched or cyclic alkyl of one to ten carbon atoms and Ar is phenyl, naphthyl, anthracyl, or phenanthryl; and~~

~~Z is defined as a moiety selected from the group consisting of: OH, OR, SH, SR, NH<sub>2</sub>, NRCH(R<sub>11</sub>)COOH, and NRCH(R<sub>11</sub>)COOH, wherein R<sub>11</sub> is a moiety having the formula: R, or (CH<sub>2</sub>)<sub>n</sub>NR<sub>12</sub>R<sub>13</sub>, wherein n=1-4 and R<sub>12</sub> and R<sub>13</sub> are independently selected from the group consisting of: H, R, and C(NH)(NH<sub>2</sub>), or pharmaceutically acceptable salt thereof.~~

65. (Currently Amended) A compound or pharmaceutically acceptable salt thereof, having the formula:



wherein:

R<sub>1</sub> and R<sub>2</sub> are independently selected from the group consisting of: H, R, and ArR-, provided that neither R<sub>1</sub> or R<sub>2</sub> is tert-butoxycarbonyl, or R<sub>1</sub> and R<sub>2</sub> are joined to form a ring;

R<sub>3</sub> and R<sub>4</sub> are independently selected from the group consisting of: H, R, and ArR-,  
or R<sub>3</sub> and R<sub>4</sub> are joined to form a ring;

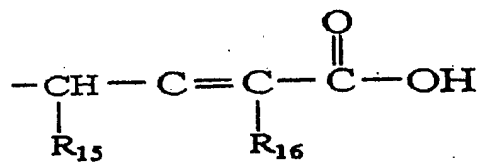
R<sub>5</sub> is selected from the group consisting of: H, R, ArR-, and Ar;

R<sub>6</sub> is selected from the group consisting of: H, R, and ArR-;

R<sub>7</sub> and R<sub>8</sub> are independently selected from the group consisting of: H, R, and ArR-;

and

R<sub>9</sub> has the formula:



wherein R<sub>15</sub> is isopropyl and R<sub>16</sub> is methyl;

R is defined as a saturated or unsaturated moiety having a linear, branched, or non-aromatic cyclic skeleton containing one to ten carbon atoms, zero to four nitrogen atoms, zero to four oxygen atoms, and zero to four sulfur atoms, and the carbon atoms are optionally substituted with: =O, =S, -OH, -OR<sub>10</sub>, -O<sub>2</sub>CR<sub>10</sub>, -SH, -SR<sub>10</sub>, -SOCR<sub>10</sub>, -NH<sub>2</sub>, -NHR<sub>10</sub>, -N(R<sub>10</sub>)<sub>2</sub>, -NHCOR<sub>10</sub>, -NR<sub>10</sub>COR<sub>10</sub>, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R<sub>10</sub>, -CHO, -COR<sub>10</sub>, -CONH<sub>2</sub>, -CONHR<sub>10</sub>, -CON(R<sub>10</sub>)<sub>2</sub>, -COSH, -COSR<sub>10</sub>, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR<sub>10</sub>, -SO<sub>2</sub>R<sub>10</sub>, wherein R<sub>10</sub> is a linear, branched or cyclic, one to ten carbon saturated or unsaturated alkyl group,

the ring formed by joining R<sub>1</sub> and R<sub>2</sub> or by joining R<sub>3</sub> and R<sub>4</sub> is a three to seven

member non-aromatic cyclic skeleton within the definition of R,

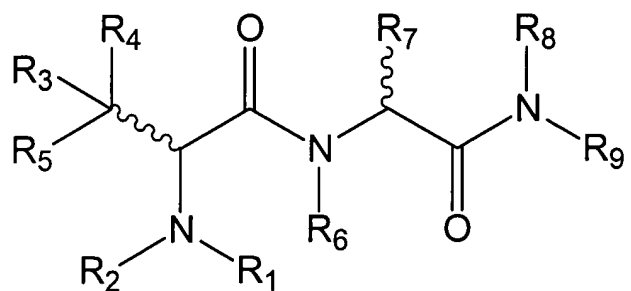
X is defined as a moiety selected from the group consisting of: -OH, -OR, =O, =S, -O<sub>2</sub>CR, -SH, -SR, -SOCR, -NH<sub>2</sub>, -NHR, -N(R)<sub>2</sub>, -NHCOR, -NRCOR, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R, -CHO, -COR, -CONH<sub>2</sub>, -CONHR, -CON(R)<sub>2</sub>, -COSH, -COSR, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR, and -SO<sub>2</sub>R; and

Ar is an aromatic ring selected from the group consisting of: phenyl, naphthyl, anthracyl, phenanthryl, furyl, pyrrolyl, thiophenyl, benzofuryl, benzothiophenyl, quinolinyl, isoquinolyl, imidazolyl, thiazolyl, oxazolyl, and pyridinyl, optionally substituted with R or X[[:]]

~~Y is a linear, unsaturated, two to six carbon alkyl group, optionally substituted with R, ArR, or X; provided however if R<sub>8</sub> is H, then the optional substituents on Y are limited to R and ArR wherein R is linear, branched or cyclic alkyl of one to ten carbon atoms and Ar is phenyl, naphthyl, anthracyl, or phenanthryl; and~~

~~\_\_\_\_\_ Z is defined as a moiety selected from the group consisting of: -OH, -OR, -SH, -SR, -NH<sub>2</sub>, -NRCH(R<sub>41</sub>)COOH, and -NRCH(R<sub>41</sub>)COOH, wherein R<sub>41</sub> is a moiety having the formula: R, or -(CH<sub>2</sub>)<sub>n</sub>NR<sub>42</sub>R<sub>43</sub>, wherein n=1-4 and R<sub>42</sub> and R<sub>43</sub> are independently selected from the group consisting of: H, R, and -C(NH)(NH<sub>2</sub>), or pharmaceutically acceptable salt thereof.~~

66. (Currently Amended) A compound or pharmaceutically acceptable salt thereof, having the formula:



wherein:

R<sub>1</sub> and R<sub>2</sub> are independently selected from the group consisting of: H, R, and ArR-, provided that neither R<sub>1</sub> or R<sub>2</sub> is tert-butoxycarbonyl, or R<sub>1</sub> and R<sub>2</sub> are joined to form a ring;

R<sub>3</sub> and R<sub>4</sub> are independently selected from the group consisting of: H, R, and ArR-, or R<sub>3</sub> and R<sub>4</sub> are joined to form a ring;

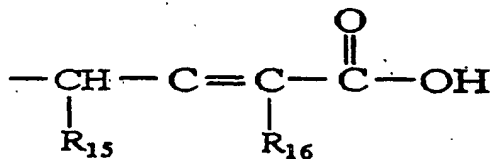
R<sub>5</sub> is selected from the group consisting of: H, R, ArR-, and Ar;

R<sub>6</sub> is H or CH<sub>3</sub>;

R<sub>7</sub> is a three to six carbon atom, branched alkyl group;

R<sub>8</sub> is independently selected from the group consisting of: H, R, and ArR-; and

R<sub>9</sub> has the formula:



wherein R<sub>15</sub> is selected from the group consisting of: methyl, ethyl, n-propyl, isopropyl, tert-butyl, iso-butyl, and sec-butyl; and R<sub>16</sub> is selected from the group consisting

of H, methyl, ethyl, propyl, iso-propyl, n-butyl, iso-butyl and sec-butyl

R is defined as a saturated or unsaturated moiety having a linear, branched, or non-aromatic cyclic skeleton containing one to ten carbon atoms, zero to four nitrogen atoms, zero to four oxygen atoms, and zero to four sulfur atoms, and the carbon atoms are optionally substituted with: =O, =S, -OH, -OR<sub>10</sub>, -O<sub>2</sub>CR<sub>10</sub>, -SH, -SR<sub>10</sub>, -SOCR<sub>10</sub>, -NH<sub>2</sub>, -NHR<sub>10</sub>, -N(R<sub>10</sub>)<sub>2</sub>, -NHCOR<sub>10</sub>, -NR<sub>10</sub>COR<sub>10</sub>, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R<sub>10</sub>, -CHO, -COR<sub>10</sub>, -CONH<sub>2</sub>, -CONHR<sub>10</sub>, -CON(R<sub>10</sub>)<sub>2</sub>, -COSH, -COSR<sub>10</sub>, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR<sub>10</sub>, -SO<sub>2</sub>R<sub>10</sub>, wherein R<sub>10</sub> is a linear, branched or cyclic, one to ten carbon saturated or unsaturated alkyl group,

the ring formed by joining R<sub>1</sub> and R<sub>2</sub> or by joining R<sub>3</sub> and R<sub>4</sub> is a three to seven member non-aromatic cyclic skeleton within the definition of R,

X is defined as a moiety selected from the group consisting of: -OH, -OR, =O, =S, -O<sub>2</sub>CR, -SH, -SR, -SOCR, -NH<sub>2</sub>, -NHR, -N(R)<sub>2</sub>, -NHCOR, -NRCOR, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R, -CHO, -COR, -CONH<sub>2</sub>, -CONHR, -CON(R)<sub>2</sub>, -COSH, -COSR, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR, and -SO<sub>2</sub>R; and

Ar is an aromatic ring selected from the group consisting of: phenyl, naphthyl, anthracyl, phenanthryl, furyl, pyrrolyl, thiophenyl, benzofuryl, benzothiophenyl, quinolinyl, isoquinolyl, imidazolyl, thiazolyl, oxazolyl, and pyridinyl, optionally substituted with R or X[[:]]

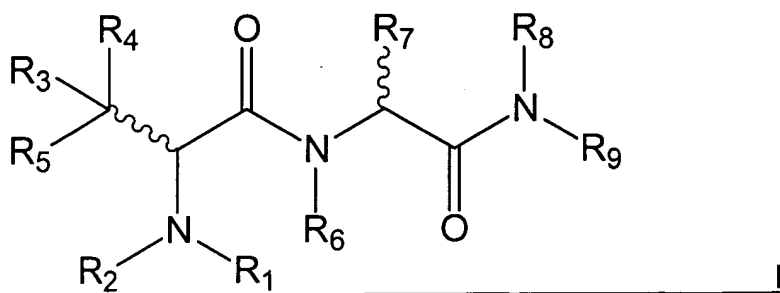
~~Y is a linear, unsaturated, two to six carbon alkyl group, optionally substituted with R, ArR, or X; provided however if R<sub>8</sub> is H, then the optional substituents on Y are limited~~

to R and ArR wherein R is linear, branched or cyclic alkyl of one to ten carbon atoms and Ar is phenyl, naphthyl, anthracyl, or phenanthryl; and

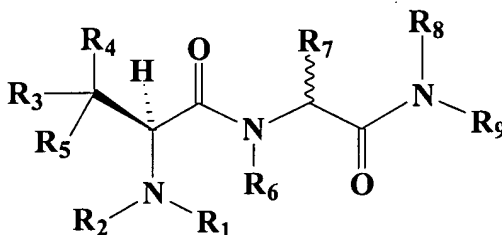
~~\_\_\_\_\_ Z is defined as a moiety selected from the group consisting of: OH, OR, SH; SR, NH<sub>2</sub>, NRCH(R<sub>11</sub>)COOH, and NRCH(R<sub>11</sub>)COOH, wherein R<sub>11</sub> is a moiety having the formula: R, or (CH<sub>2</sub>)<sub>n</sub>NR<sub>12</sub>R<sub>13</sub>, wherein n=1-4 and R<sub>12</sub> and R<sub>13</sub> are independently selected from the group consisting of: H, R, and C(NH)(NH<sub>2</sub>), or pharmaceutically acceptable salt thereof.~~

67. (Cancelled)

68. (Currently Amended) ~~The compound of claim 22, A compound or pharmaceutically acceptable salt thereof, having the formula:~~



and having the configuration:



wherein:

R<sub>1</sub> and R<sub>2</sub> are independently selected from the group consisting of: H, R, and ArR.

provided that neither  $R_1$  or  $R_2$  is tert-butoxycarbonyl, and provided that if either one of  $R_1$  and  $R_2$  is H, each of  $R_3$ ,  $R_4$ ,  $R_6$  and  $R_8$  are H and  $R_5$  is isopropyl or phenyl, and  $R_7$  is methyl or benzyl, then for whichever of  $R_1$  or  $R_2$  is R or ArR-, the definition of R is limited to a saturated or unsaturated moiety having a linear, branched, or non-aromatic cyclic skeleton containing one to ten carbon atoms, zero to four nitrogen atoms, and zero to four sulfur atoms, and the carbon atoms are optionally substituted with: =S, -OH, -OR<sub>10</sub>, -O<sub>2</sub>CR<sub>10</sub>, -SH, -SR<sub>10</sub>, -SOCR<sub>10</sub>, -NH<sub>2</sub>, -NHR<sub>10</sub>, -N(R<sub>10</sub>)<sub>2</sub>, -NHCOR<sub>10</sub>, -NR<sub>10</sub>COR<sub>10</sub>, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R<sub>10</sub>, -CHO, -COR<sub>10</sub>, -CONH<sub>2</sub>, -CONHR<sub>10</sub>, -CON(R<sub>10</sub>)<sub>2</sub>, -COSH, -COSR<sub>10</sub>, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR<sub>10</sub>, -SO<sub>2</sub>R<sub>10</sub>, wherein R<sub>10</sub> is a linear, branched or cyclic, one to ten carbon saturated or unsaturated alkyl group or  $R_1$  and  $R_2$  are joined to form a ring;

$R_3$  and  $R_4$  are independently selected from the group consisting of: H, R, and ArR-, or  $R_3$  and  $R_4$  are joined to form a ring;

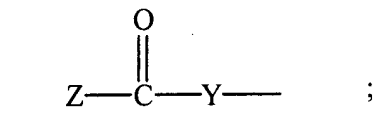
$R_5$  is selected from the group consisting of: H, R, ArR-, and Ar;

$R_6$  is selected from the group consisting of: H, R, and ArR-;

$R_7$  and  $R_8$  are independently selected from the group consisting of: H, R, and ArR-;

and

$R_9$  is:



R is defined as a saturated or unsaturated moiety having a linear, branched, or

non-aromatic cyclic skeleton containing one to ten carbon atoms, zero to four nitrogen atoms, zero to four oxygen atoms, and zero to four sulfur atoms, and the carbon atoms are optionally substituted with: =O, =S, -OH, -OR<sub>10</sub>, -O<sub>2</sub>CR<sub>10</sub>, -SH, -SR<sub>10</sub>, -SOCR<sub>10</sub>, -NH<sub>2</sub>, -NHR<sub>10</sub>, -N(R<sub>10</sub>)<sub>2</sub>, -NHCOR<sub>10</sub>, -NR<sub>10</sub>COR<sub>10</sub>, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R<sub>10</sub>, -CHO, -COR<sub>10</sub>, -CONH<sub>2</sub>, -CONHR<sub>10</sub>, -CON(R<sub>10</sub>)<sub>2</sub>, -COSH, -COSR<sub>10</sub>, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR<sub>10</sub>, -SO<sub>2</sub>R<sub>10</sub>, wherein R<sub>10</sub> is a linear, branched or cyclic, one to ten carbon saturated or unsaturated alkyl group,

the ring formed by joining R<sub>1</sub> and R<sub>2</sub> or by joining R<sub>3</sub> and R<sub>4</sub> is a three to seven member non-aromatic cyclic skeleton within the definition of R,

Ar is an aromatic ring selected from the group consisting of: phenyl, naphthyl, anthracyl, phenanthryl, furyl, pyrrolyl, thiophenyl, benzofuryl, benzothiophenyl, quinolinyl, isoquinolinyl, imidazolyl, thiazolyl, oxazolyl, and pyridinyl, optionally substituted with R or X;

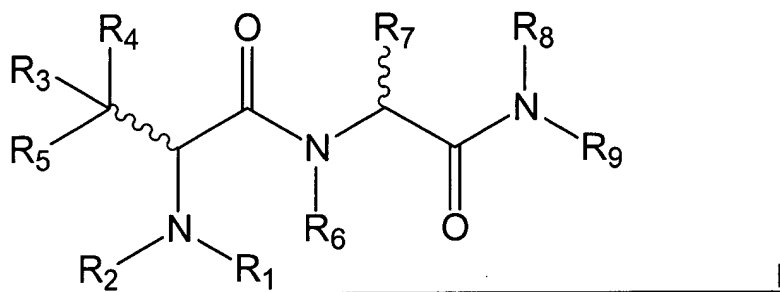
X is defined as a moiety selected from the group consisting of: -OH, -OR, =O, =S, -O<sub>2</sub>CR, -SH, -SR, -SOCR, -NH<sub>2</sub>, -NHR, -N(R)<sub>2</sub>, -NHCOR, -NRCOR, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R, -CHO, -COR, -CONH<sub>2</sub>, -CONHR, -CON(R)<sub>2</sub>, -COSH, -COSR, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR, and -SO<sub>2</sub>R;

Y is a linear, unsaturated, two to six carbon alkyl group, optionally substituted with R, ArR-, or X; provided however if R<sub>8</sub> is H, then the optional substituents on Y are limited to R and ArR- wherein R is linear, branched or cyclic alkyl of one to ten carbon atoms and Ar is phenyl, naphthyl, anthracyl, or phenanthryl; and

Z is defined as a moiety selected from the group consisting of: -OH, -OR; -SH;

-SR; -NH<sub>2</sub>; -NRCH(R<sub>11</sub>)COOH; and -NRCH(R<sub>11</sub>)COOH, wherein R<sub>11</sub> is a moiety having the formula: R, or -(CH<sub>2</sub>)<sub>n</sub>NR<sub>12</sub>R<sub>13</sub>, wherein n=1-4 and R<sub>12</sub> and R<sub>13</sub> are independently selected from the group consisting of: H; R; and -C(NH) (NH<sub>2</sub>), or pharmaceutically acceptable salt thereof.

69. (Currently Amended) ~~The compound of claim 22, wherein~~ A compound or pharmaceutically acceptable salt thereof, having the formula:



wherein:

R<sub>1</sub> and R<sub>2</sub> are independently selected from the group consisting of: H, R, and ArR-, provided that neither R<sub>1</sub> or R<sub>2</sub> is tert-butoxycarbonyl, and provided that if either one of R<sub>1</sub> and R<sub>2</sub> is H, each of R<sub>3</sub>, R<sub>4</sub>, R<sub>6</sub> and R<sub>8</sub> are H and R<sub>5</sub> is isopropyl or phenyl, and R<sub>7</sub> is methyl or benzyl, then for whichever of R<sub>1</sub> or R<sub>2</sub> is R or ArR-, the definition of R is limited to a saturated or unsaturated moiety having a linear, branched, or non-aromatic cyclic skeleton containing one to ten carbon atoms, zero to four nitrogen atoms, and zero to four sulfur atoms, and the carbon atoms are optionally substituted with: =S, -OH, -OR<sub>10</sub>, -O<sub>2</sub>CR<sub>10</sub>, -SH, -SR<sub>10</sub>, -SOCR<sub>10</sub>, -NH<sub>2</sub>, -NHR<sub>10</sub>, -N(R<sub>10</sub>)<sub>2</sub>, -NHCOR<sub>10</sub>, -NR<sub>10</sub>COR<sub>10</sub>, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R<sub>10</sub>, -CHO, -COR<sub>10</sub>, -CONH<sub>2</sub>, -CONHR<sub>10</sub>, -CON(R<sub>10</sub>)<sub>2</sub>, -COSH, -COSR<sub>10</sub>, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR<sub>10</sub>, -SO<sub>2</sub>R<sub>10</sub>, wherein R<sub>10</sub> is a linear, branched or cyclic, one

to ten carbon saturated or unsaturated alkyl group or R<sub>1</sub> and R<sub>2</sub> are joined to form a ring;

R<sub>3</sub> and R<sub>4</sub> are independently selected from the group consisting of: H, R, and ArR-;

or R<sub>3</sub> and R<sub>4</sub> are joined to form a ring;

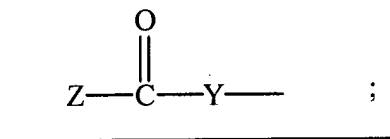
R<sub>5</sub> is selected from the group consisting of: H, R, ArR-, and Ar;

R<sub>6</sub> is selected from the group consisting of: H, R, and ArR-;

R<sub>7</sub> and R<sub>8</sub> are independently selected from the group consisting of: H, R, and ArR-;

and

R<sub>9</sub> is:



R is defined as a saturated or unsaturated moiety having a linear, branched, or non-aromatic cyclic skeleton containing one to ten carbon atoms, zero to four nitrogen atoms, zero to four oxygen atoms, and zero to four sulfur atoms, and the carbon atoms are optionally substituted with: =O, =S, -OH, -OR<sub>10</sub>, -O<sub>2</sub>CR<sub>10</sub>, -SH, -SR<sub>10</sub>, -SOCR<sub>10</sub>, -NH<sub>2</sub>, -NHR<sub>10</sub>, -N(R<sub>10</sub>)<sub>2</sub>, -NHCOR<sub>10</sub>, -NR<sub>10</sub>COR<sub>10</sub>, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R<sub>10</sub>, -CHO, -COR<sub>10</sub>, -CONH<sub>2</sub>, -CONHR<sub>10</sub>, -CON(R<sub>10</sub>)<sub>2</sub>, -COSH, -COSR<sub>10</sub>, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR<sub>10</sub>, -SO<sub>2</sub>R<sub>10</sub>, wherein R<sub>10</sub> is a linear, branched or cyclic, one to ten carbon saturated or unsaturated alkyl group,

the ring formed by joining R<sub>1</sub> and R<sub>2</sub> or by joining R<sub>3</sub> and R<sub>4</sub> is a three to seven member non-aromatic cyclic skeleton within the definition of R,

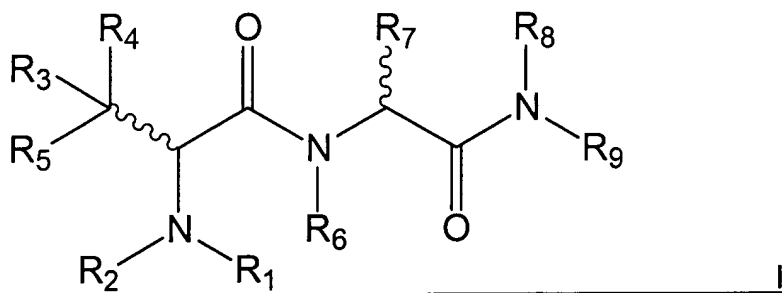
Ar is an aromatic ring selected from the group consisting of: phenyl, naphthyl, anthracyl, phenanthryl, furyl, pyrrolyl, thiophenyl, benzofuryl, benzothiophenyl, quinolinyl, isoquinolyl, imidazolyl, thiazolyl, oxazolyl, and pyridinyl, optionally substituted with R or X;

X is defined as a moiety selected from the group consisting of: -OH, -OR, =O, =S, -O<sub>2</sub>CR, -SH, -SR, -SOCR, -NH<sub>2</sub>, -NHR, -N(R)<sub>2</sub>, -NHCOR, -NRCOR, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R, -CHO, -COR, -CONH<sub>2</sub>, -CONHR, -CON(R)<sub>2</sub>, -COSH, -COSR, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR, and -SO<sub>2</sub>R;

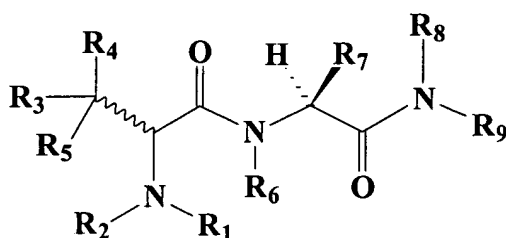
Y is a linear, unsaturated, two to six carbon alkyl group, optionally substituted with R, ArR-, or X; provided however if R<sub>8</sub> is H, then the optional substituents on Y are limited to R and ArR- wherein R is linear, branched or cyclic alkyl of one to ten carbon atoms and Ar is phenyl, naphthyl, anthracyl, or phenanthryl, wherein Y comprises a chiral center of the S-configuration centre having an s-configuration; and

Z is defined as a moiety selected from the group consisting of: -OH, -OR; -SH; -SR; -NH<sub>2</sub>; -NRCH(R<sub>11</sub>)COOH; and -NRCH(R<sub>11</sub>)COOH, wherein R<sub>11</sub> is a moiety having the formula: R, or -(CH<sub>2</sub>)<sub>n</sub>NR<sub>12</sub>R<sub>13</sub>, wherein n=1-4 and R<sub>12</sub> and R<sub>13</sub> are independently selected from the group consisting of: H; R; and -C(NH) (NH<sub>2</sub>), or pharmaceutically acceptable salt thereof.

70. (Currently Amended) The compound of claim 22, wherein A compound or pharmaceutically acceptable salt thereof, having the formula:



and having the configuration:



wherein:

R<sub>1</sub> and R<sub>2</sub> are independently selected from the group consisting of: H, R, and ArR-, provided that neither R<sub>1</sub> or R<sub>2</sub> is tert-butoxycarbonyl, and provided that if either one of R<sub>1</sub> and R<sub>2</sub> is H, each of R<sub>3</sub>, R<sub>4</sub>, R<sub>6</sub> and R<sub>8</sub> are H and R<sub>5</sub> is isopropyl or phenyl, and R<sub>7</sub> is methyl or benzyl, then for whichever of R<sub>1</sub> or R<sub>2</sub> is R or ArR-, the definition of R is limited to a saturated or unsaturated moiety having a linear, branched, or non-aromatic cyclic skeleton containing one to ten carbon atoms, zero to four nitrogen atoms, and zero to four sulfur atoms, and the carbon atoms are optionally substituted with: =S, -OH, -OR<sub>10</sub>, -O<sub>2</sub>CR<sub>10</sub>, -SH, -SR<sub>10</sub>, -SOCR<sub>10</sub>, -NH<sub>2</sub>, -NHR<sub>10</sub>, -N(R<sub>10</sub>)<sub>2</sub>, -NHCOR<sub>10</sub>, -NR<sub>10</sub>COR<sub>10</sub>, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R<sub>10</sub>, -CHO, -COR<sub>10</sub>, -CONH<sub>2</sub>, -CONHR<sub>10</sub>, -CON(R<sub>10</sub>)<sub>2</sub>, -COSH, -COSR<sub>10</sub>, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR<sub>10</sub>, -SO<sub>2</sub>R<sub>10</sub>, wherein R<sub>10</sub> is a linear, branched or cyclic, one

to ten carbon saturated or unsaturated alkyl group or R<sub>1</sub> and R<sub>2</sub> are joined to form a ring;

R<sub>3</sub> and R<sub>4</sub> are independently selected from the group consisting of: H, R, and ArR-;

or R<sub>3</sub> and R<sub>4</sub> are joined to form a ring;

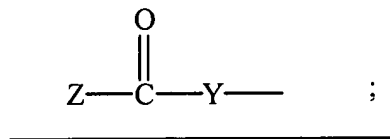
R<sub>5</sub> is selected from the group consisting of: H, R, ArR-, and Ar;

R<sub>6</sub> is selected from the group consisting of: H, R, and ArR-;

R<sub>7</sub> and R<sub>8</sub> are independently selected from the group consisting of: H, R, and ArR-;

and

R<sub>9</sub> is:



R is defined as a saturated or unsaturated moiety having a linear, branched, or non-aromatic cyclic skeleton containing one to ten carbon atoms, zero to four nitrogen atoms, zero to four oxygen atoms, and zero to four sulfur atoms, and the carbon atoms are optionally substituted with: =O, =S, -OH, -OR<sub>10</sub>, -O<sub>2</sub>CR<sub>10</sub>, -SH, -SR<sub>10</sub>, -SOCR<sub>10</sub>, -NH<sub>2</sub>, -NHR<sub>10</sub>, -N(R<sub>10</sub>)<sub>2</sub>, -NHCOR<sub>10</sub>, -NR<sub>10</sub>COR<sub>10</sub>, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R<sub>10</sub>, -CHO, -COR<sub>10</sub>, -CONH<sub>2</sub>, -CONHR<sub>10</sub>, -CON(R<sub>10</sub>)<sub>2</sub>, -COSH, -COSR<sub>10</sub>, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR<sub>10</sub>, -SO<sub>2</sub>R<sub>10</sub>, wherein R<sub>10</sub> is a linear, branched or cyclic, one to ten carbon saturated or unsaturated alkyl group,

the ring formed by joining R<sub>1</sub> and R<sub>2</sub> or by joining R<sub>3</sub> and R<sub>4</sub> is a three to seven member non-aromatic cyclic skeleton within the definition of R,

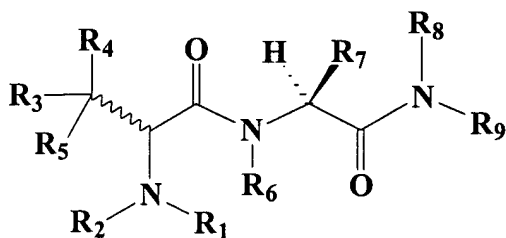
Ar is an aromatic ring selected from the group consisting of: phenyl, naphthyl, anthracyl, phenanthryl, furyl, pyrrolyl, thiophenyl, benzofuryl, benzothiophenyl, quinolinyl, isoquinolyl, imidazolyl, thiazolyl, oxazolyl, and pyridinyl, optionally substituted with R or X;

X is defined as a moiety selected from the group consisting of: -OH, -OR, =O, =S, -O<sub>2</sub>CR, -SH, -SR, -SOCR, -NH<sub>2</sub>, -NHR, -N(R)<sub>2</sub>, -NHCOR, -NRCOR, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R, -CHO, -COR, -CONH<sub>2</sub>, -CONHR, -CON(R)<sub>2</sub>, -COSH, -COSR, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR, and -SO<sub>2</sub>R;

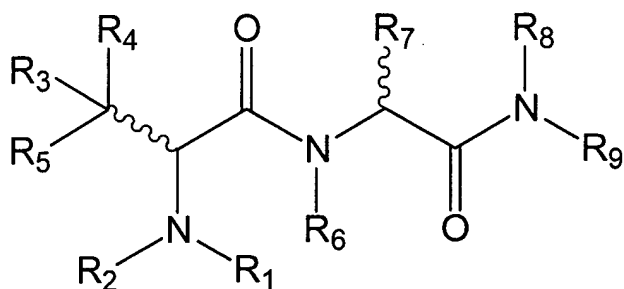
Y is a linear, unsaturated, two to six carbon alkyl group, optionally substituted with R, ArR-, or X; provided however if R<sub>8</sub> is H, then the optional substituents on Y are limited to R and ArR- wherein R is linear, branched or cyclic alkyl of one to ten carbon atoms and Ar is phenyl, naphthyl, anthracyl, or phenanthryl; and

Z is defined as a moiety selected from the group consisting of: -OH, -OR; -SH; -SR; -NH<sub>2</sub>; -NRCH(R<sub>11</sub>)COOH; and -NRCH(R<sub>11</sub>)COOH, wherein R<sub>11</sub> is a moiety having the formula: R, or -(CH<sub>2</sub>)<sub>n</sub>NR<sub>12</sub>R<sub>13</sub>, wherein n=1-4 and R<sub>12</sub> and R<sub>13</sub> are independently selected from the group consisting of: H; R; and -C(NH) (NH<sub>2</sub>), or pharmaceutically acceptable salt thereof.

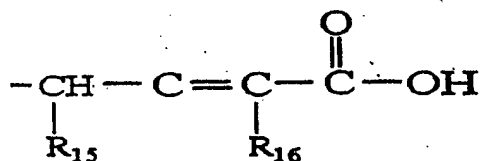
71. (Currently Amended) A compound or pharmaceutically acceptable salt thereof having the configuration:



and having the formula:



wherein R<sub>5</sub> is Ar; R<sub>3</sub> and R<sub>4</sub> are each CH<sub>3</sub>; R<sub>1</sub>, R<sub>2</sub>, R<sub>6</sub> and R<sub>8</sub> are independently H or CH<sub>3</sub>; R<sub>7</sub> is a three to six carbon branched alkyl group; and, R<sub>9</sub> has the formula



wherein R<sub>15</sub> is selected from the group consisting of methyl, ethyl, n-propyl, isopropyl, tert-butyl, iso-butyl, and sec-butyl; and R<sub>16</sub> is selected from the group consisting of H, methyl, ethyl, propyl, iso-propyl, n-butyl, iso-butyl and sec-butyl;

R is defined as a saturated or unsaturated moiety having a linear, branched, or non-aromatic cyclic skeleton containing one to ten carbon atoms, zero to four nitrogen atoms, zero to four oxygen atoms, and zero to four sulfur atoms, and the carbon atoms are optionally substituted with: =O, =S, -OH, -OR<sub>10</sub>, -O<sub>2</sub>CR<sub>10</sub>, -SH, -SR<sub>10</sub>, -SOCR<sub>10</sub>, -NH<sub>2</sub>,

-NHR<sub>10</sub>, -N(R<sub>10</sub>)<sub>2</sub>, -NHCOR<sub>10</sub>, -NR<sub>10</sub>COR<sub>10</sub>, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R<sub>10</sub>, -CHO, -COR<sub>10</sub>, -CONH<sub>2</sub>, -CONHR<sub>10</sub>, -CON(R<sub>10</sub>)<sub>2</sub>, -COSH, -COSR<sub>10</sub>, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR<sub>10</sub>, -SO<sub>2</sub>R<sub>10</sub>, wherein R<sub>10</sub> is a linear, branched or cyclic, one to ten carbon saturated or unsaturated alkyl group,

the ring formed by joining R<sub>1</sub> and R<sub>2</sub> or by joining R<sub>3</sub> and R<sub>4</sub> is a three to seven member non-aromatic cyclic skeleton within the definition of R,

X is defined as a moiety selected from the group consisting of: -OH, -OR, =O, =S, -O<sub>2</sub>CR, -SH, -SR, -SOCR, -NH<sub>2</sub>, -NHR, -N(R)<sub>2</sub>, -NHCOR, -NRCOR, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R, -CHO, -COR, -CONH<sub>2</sub>, -CONHR, -CON(R)<sub>2</sub>, -COSH, -COSR, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR, and -SO<sub>2</sub>R;

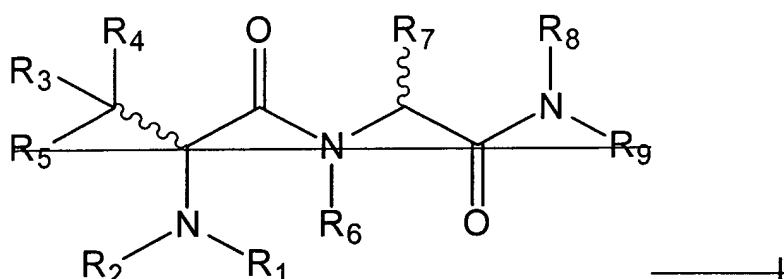
Ar is an aromatic ring selected from the group consisting of: phenyl, naphthyl, anthracyl, phenanthryl, furyl, pyrrolyl, thiophenyl, benzofuryl, benzothiophenyl, quinolinyl, isoquinolyl, imidazolyl, thiazolyl, oxazolyl, and pyridinyl, optionally substituted with R or X[[:]]

~~Y is a linear, unsaturated, two to six carbon alkyl group, optionally substituted with R, ArR, or X; provided however if R<sub>8</sub> is H, then the optional substituents on Y are limited to R and ArR wherein R is linear, branched or cyclic alkyl of one to ten carbon atoms and Ar is phenyl, naphthyl, anthracyl, or phenanthryl; and~~

~~Z is defined as a moiety selected from the group consisting of: -OH, -OR, -SH, -SR, -NH<sub>2</sub>, -NRCH(R<sub>44</sub>)COOH, and -NRCH(R<sub>44</sub>)COOH, wherein R<sub>44</sub> is a moiety having the formula: R, or -(CH<sub>2</sub>)<sub>n</sub>NR<sub>42</sub>R<sub>43</sub>, wherein n=1-4 and R<sub>42</sub> and R<sub>43</sub> are independently selected~~

from the group consisting of: H, R, and  $\text{C}(\text{NH})(\text{NH}_2)$ , or pharmaceutically acceptable salt thereof.

72. (Currently Amended) A compound or pharmaceutically acceptable salt thereof, having the formula:



wherein:

~~R<sub>4</sub> and R<sub>2</sub> are independently selected from the group consisting of: H, R, and ArR,~~  
~~provided that neither R<sub>4</sub> or R<sub>2</sub> is tert-butoxycarbonyl, or R<sub>4</sub> and R<sub>2</sub> are joined to form a~~  
~~ring;~~

~~R<sub>3</sub> and R<sub>4</sub> are independently selected from the group consisting of: H, R, and ArR,~~  
~~or R<sub>3</sub> and R<sub>4</sub> are joined to form a ring;~~

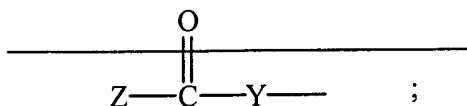
~~R<sub>5</sub> is selected from the group consisting of: H, R, ArR, and Ar;~~

~~R<sub>6</sub> is selected from the group consisting of: H, R, and ArR;~~

~~R<sub>7</sub> and R<sub>8</sub> are independently selected from the group consisting of: H, R, and ArR;~~

and

R<sub>9</sub> is:



~~R is defined as a saturated or unsaturated moiety having a linear, branched, or non-aromatic cyclic skeleton containing one to ten carbon atoms, zero to four nitrogen atoms, zero to four oxygen atoms, and zero to four sulfur atoms, and the carbon atoms are optionally substituted with: =O, =S, OH, OR<sub>10</sub>, O<sub>2</sub>CR<sub>10</sub>, SH, SR<sub>10</sub>, SOCR<sub>10</sub>, NH<sub>2</sub>, NHR<sub>10</sub>, N(R<sub>10</sub>)<sub>2</sub>, NHCOR<sub>10</sub>, NR<sub>10</sub>COR<sub>10</sub>, I, Br, Cl, F, CN, CO<sub>2</sub>H, CO<sub>2</sub>R<sub>10</sub>, CHO, COR<sub>10</sub>, CONH<sub>2</sub>, CONHR<sub>10</sub>, CON(R<sub>10</sub>)<sub>2</sub>, COSH, COSR<sub>10</sub>, NO<sub>2</sub>, SO<sub>3</sub>H, SOR<sub>10</sub>, SO<sub>2</sub>R<sub>10</sub>, wherein R<sub>10</sub> is a linear, branched or cyclic, one to ten carbon saturated or unsaturated alkyl group,~~

~~the ring formed by joining R<sub>1</sub> and R<sub>2</sub> or by joining R<sub>3</sub> and R<sub>4</sub> is a three to seven member non-aromatic cyclic skeleton within the definition of R,~~

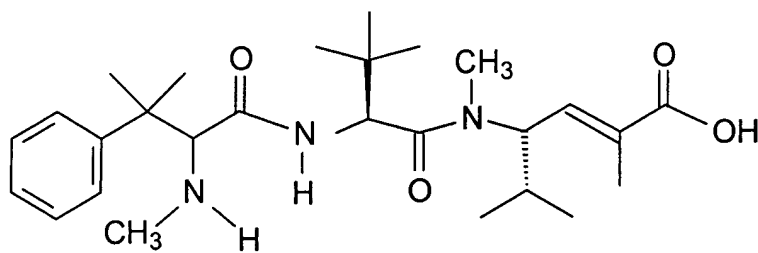
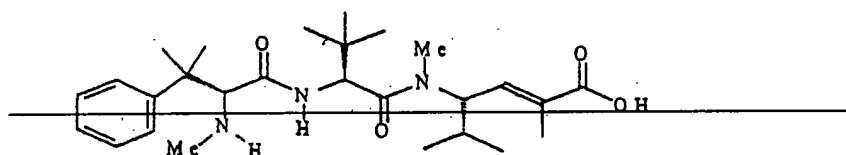
~~X is defined as a moiety selected from the group consisting of: OH, OR, =O, =S, O<sub>2</sub>CR, SH, SR, SOCR, NH<sub>2</sub>, NHR, N(R)<sub>2</sub>, NHCOR, NRCOR, I, Br, Cl, F, CN, CO<sub>2</sub>H, CO<sub>2</sub>R, CHO, COR, CONH<sub>2</sub>, CONHR, CON(R)<sub>2</sub>, COSH, COSR, NO<sub>2</sub>, SO<sub>3</sub>H, SOR, and SO<sub>2</sub>R;~~

~~Ar is an aromatic ring selected from the group consisting of: phenyl, naphthyl, anthracyl, phenanthryl, furyl, pyrrolyl, thiophenyl, benzofuryl, benzothiophenyl, quinolinyl, isoquinolinyl, imidazolyl, thiazolyl, oxazolyl, and pyridinyl, optionally substituted with R or X;~~

~~Y is a linear, unsaturated, two to six carbon alkyl group, optionally substituted with R, ArR, or X; provided however if R<sub>8</sub> is H, then the optional substituents on Y are limited to R and ArR wherein R is linear, branched or cyclic alkyl of one to ten carbon atoms and Ar is phenyl, naphthyl, anthracyl, or phenanthryl; and~~

~~Z is defined as a moiety selected from the group consisting of: OH, OR, SH, SR, NH<sub>2</sub>, NRCH(R<sub>41</sub>)COOH, and NRCH(R<sub>41</sub>)COOH, wherein R<sub>41</sub> is a moiety having the formula: R, or (CH<sub>2</sub>)<sub>n</sub>NR<sub>42</sub>R<sub>43</sub>, wherein n=1-4 and R<sub>42</sub> and R<sub>43</sub> are independently selected from the group consisting of: H, R, and C(NH)(NH<sub>2</sub>), or pharmaceutically acceptable salt thereof;~~

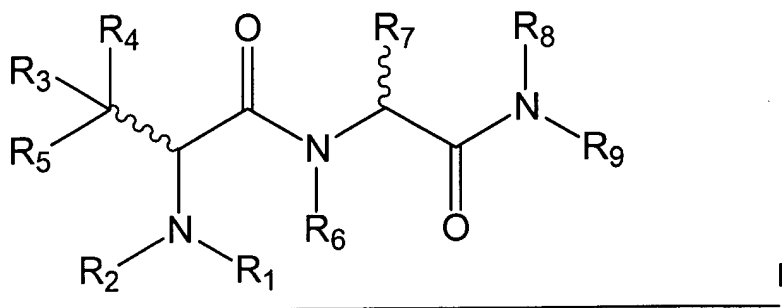
~~wherein the compound has the structure:~~



~~in which Me is CH<sub>3</sub>.~~

73. (Currently Amended) A pharmaceutical composition suitable for treating

tumors comprising an anti-tumor effective amount of a compound or pharmaceutically acceptable salt having the formula having the formula



wherein:

R<sub>1</sub> and R<sub>2</sub> are independently selected from the group consisting of: H, R, and ArR-, provided that neither R<sub>1</sub> or R<sub>2</sub> is tert-butoxycarbonyl, or R<sub>1</sub> and R<sub>2</sub> are joined to form a ring;

R<sub>3</sub> and R<sub>4</sub> are independently selected from the group consisting of: H, R, and ArR-, or R<sub>3</sub> and R<sub>4</sub> are joined to form a ring;

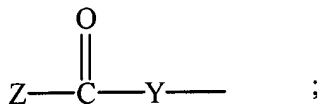
R<sub>5</sub> is selected from the group consisting of: H, R, ArR-, and Ar;

R<sub>6</sub> is selected from the group consisting of: H, R, and ArR-;

R<sub>7</sub> and R<sub>8</sub> are independently selected from the group consisting of: H, R, and ArR-;

and

R<sub>9</sub> is:



R is defined as a saturated or unsaturated moiety having a linear, branched, or

non-aromatic cyclic skeleton containing one to ten carbon atoms, zero to four nitrogen atoms, zero to four oxygen atoms, and zero to four sulfur atoms, and the carbon atoms are optionally substituted with: =O, =S, -OH, -OR<sub>10</sub>, -O<sub>2</sub>CR<sub>10</sub>, -SH, -SR<sub>10</sub>, -SOCR<sub>10</sub>, -NH<sub>2</sub>, -NHR<sub>10</sub>, -N(R<sub>10</sub>)<sub>2</sub>, -NHCOR<sub>10</sub>, -NR<sub>10</sub>COR<sub>10</sub>, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R<sub>10</sub>, -CHO, -COR<sub>10</sub>, -CONH<sub>2</sub>, -CONHR<sub>10</sub>, -CON(R<sub>10</sub>)<sub>2</sub>, -COSH, -COSR<sub>10</sub>, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR<sub>10</sub>, -SO<sub>2</sub>R<sub>10</sub>, wherein R<sub>10</sub> is a linear, branched or cyclic, one to ten carbon saturated or unsaturated alkyl group,

the ring formed by joining R<sub>1</sub> and R<sub>2</sub> or by joining R<sub>3</sub> and R<sub>4</sub> is a three to seven member non-aromatic cyclic skeleton within the definition of R,

X is defined as a moiety selected from the group consisting of: -OH, -OR, =O, =S, -O<sub>2</sub>CR, -SH, -SR, -SOCR, -NH<sub>2</sub>, -NHR, -N(R)<sub>2</sub>, -NHCOR, -NRCOR, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R, -CHO, -COR, -CONH<sub>2</sub>, -CONHR, -CON(R)<sub>2</sub>, -COSH, -COSR, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR, and -SO<sub>2</sub>R;

Ar is an aromatic ring selected from the group consisting of: phenyl, naphthyl, anthracyl, phenanthryl, furyl, pyrrolyl, thiophenyl, benzofuryl, benzothiophenyl, quinolinyl, isoquinolyl, imidazolyl, thiazolyl, oxazolyl, and pyridinyl, optionally substituted with R or X;

Y is a linear, unsaturated, two to six carbon alkyl group, optionally substituted with R, ArR-, or X; provided however if R<sub>8</sub> is H, then the optional substituents on Y are limited to R and ArR- wherein R is linear, branched or cyclic alkyl of one to ten carbon atoms and Ar is phenyl, naphthyl, anthracyl, or phenanthryl; and

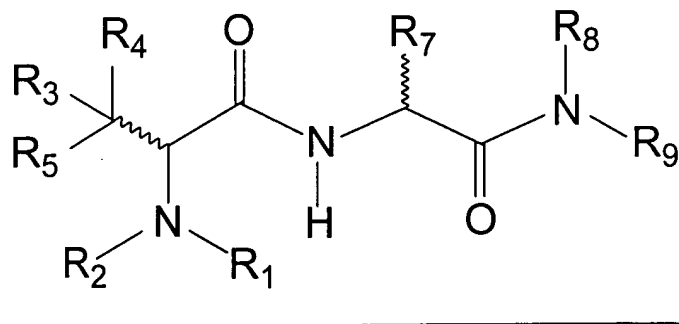
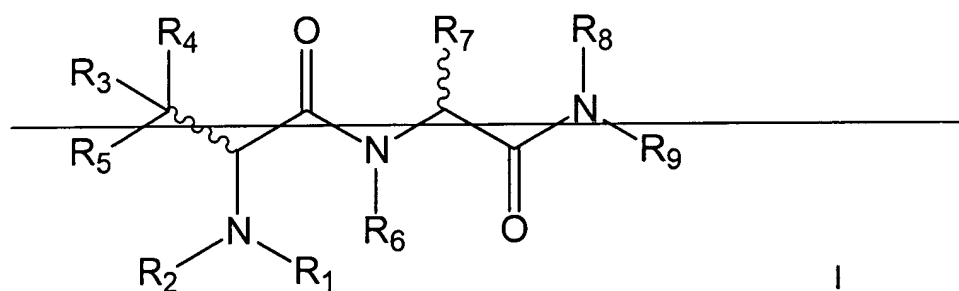
Z is defined as a moiety selected from the group consisting of: -OH, -OR; -SH;

-SR; -NH<sub>2</sub>; -NRCH(R<sub>11</sub>)COOH; and -NRCH(R<sub>11</sub>)COOH, wherein R<sub>11</sub> is a moiety having the formula: R, or -(CH<sub>2</sub>)<sub>n</sub>NR<sub>12</sub>R<sub>13</sub>, wherein n=1-4 and R<sub>12</sub> and R<sub>13</sub> are independently selected from the group consisting of: H; R; and -C(NH) (NH<sub>2</sub>), or pharmaceutically acceptable salt thereof; and

an acceptable pharmaceutical excipient.

74. (Withdrawn) A method of treating tumors by arresting cell mitosis in a patient in need of such treatment comprising administering to said patient an anti-mitotic effective amount of at least one compound of claim 22.

75. (Currently Amended) A compound or pharmaceutically acceptable salt thereof, having the formula:



wherein:

R<sub>1</sub> and R<sub>2</sub> are independently selected such that neither R<sub>1</sub> or R<sub>2</sub> is tertbutoxy carbonyl (tboc), from the group consisting of: H and a saturated or unsaturated moiety having a linear, branched, or non-aromatic cyclic skeleton containing one to ten carbon atoms, zero to one nitrogen atoms, zero to four sulfur atoms and the carbon atoms are optionally substituted with: =S, -OH; -SH, -NH<sub>2</sub>, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CHO, -CONH<sub>2</sub>, -COSH, -NO<sub>2</sub> and -SO<sub>3</sub>H;

R<sub>3</sub> and R<sub>4</sub> are H or a saturated or unsaturated moiety having a linear, branched, or non-aromatic cyclic ~~skeleton~~ alkyl containing one to ten carbon atoms optionally substituted with: =O, =S, -OH, -SH, -NH<sub>2</sub>, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CHO, -CONH<sub>2</sub>, -COSH, -NO<sub>2</sub>, -SO<sub>3</sub>H, or R<sub>3</sub> and R<sub>4</sub> are joined to form a ring;

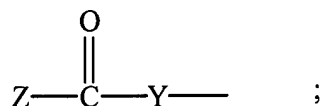
R<sub>5</sub> is selected from the group consisting of: H, R, ArR-, and Ar;

~~R<sub>6</sub> is H;~~

R<sub>7</sub> is ArR- or a saturated or unsaturated moiety having a linear, branched, or non-aromatic cyclic skeleton containing one to ten carbon atoms, zero to four nitrogen atoms, zero to four oxygen atoms, and zero to four sulfur atoms, and the carbon atoms are optionally substituted with: =O, =S, -OH, -SH, -NH<sub>2</sub>, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CHO, -CONH<sub>2</sub>, -COSH, -NO<sub>2</sub>;

R<sub>8</sub> is selected from the group consisting of: H and a saturated or unsaturated moiety having a linear, branched, or non-aromatic cyclic skeleton containing one to ten carbon atoms optionally substituted with -OH; and

R<sub>9</sub> is:



R is defined as a saturated or unsaturated moiety having a linear, branched, or non-aromatic cyclic skeleton containing one to ten carbon atoms, zero to four nitrogen atoms, zero to four oxygen atoms, and zero to four sulfur atoms, and the carbon atoms are optionally substituted with: =O, =S, -OH, -OR<sub>10</sub>, -O<sub>2</sub>CR<sub>10</sub>, -SH, -SR<sub>10</sub>, -SOCR<sub>10</sub>, -NH<sub>2</sub>, -NHR<sub>10</sub>, -N(R<sub>10</sub>)<sub>2</sub>, -NHCOR<sub>10</sub>, -NR<sub>10</sub>COR<sub>10</sub>, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R<sub>10</sub>, -CHO, -COR<sub>10</sub>, -CONH<sub>2</sub>, -CONHR<sub>10</sub>, -CON(R<sub>10</sub>)<sub>2</sub>, -COSH, -COSR<sub>10</sub>, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR<sub>10</sub>, -SO<sub>2</sub>R<sub>10</sub>, wherein R<sub>10</sub> is a linear, branched or cyclic, one to ten carbon saturated or unsaturated alkyl group,

the ring formed by joining R<sub>1</sub> and R<sub>2</sub> or by joining R<sub>3</sub> and R<sub>4</sub> is a three to seven member non-aromatic cyclic skeleton within the definition of R,

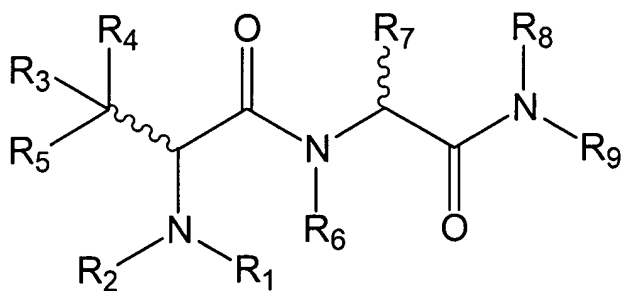
X is defined as a moiety selected from the group consisting of: -OH, -OR, =O, =S, -O<sub>2</sub>CR, -SH, -SR, -SOCR, -NH<sub>2</sub>, -NHR, -N(R)<sub>2</sub>, -NHCOR, -NRCOR, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R, -CHO, -COR, -CONH<sub>2</sub>, -CONHR, -CON(R)<sub>2</sub>, -COSH, -COSR, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR, and -SO<sub>2</sub>R;

Ar is an aromatic ring selected from the group consisting of: phenyl, naphthyl, anthracyl, phenanthryl, furyl, pyrrolyl, thiophenyl, benzofuryl, benzothiophenyl, quinolinyl, isoquinolinyl, imidazolyl, thiazolyl, oxazolyl, and pyridinyl, optionally substituted with R or X;

Y is a linear, unsaturated, two to six carbon alkyl group, optionally substituted with phenyl, naphthyl, anthracyl, phenanthryl or a saturated or unsaturated moiety having a linear, branched, or non-aromatic cyclic skeleton containing one to ten carbon atoms optionally substituted with: =S, -OH; and

Z is defined as a moiety selected from the group consisting of: -OH, -OR; -SH; -SR; -NH<sub>2</sub>; or pharmaceutically acceptable salt thereof.

76. (Currently Amended) The A compound or pharmaceutically acceptable salt of ~~claim 75, wherein:~~ having the formula:



wherein:

R<sub>1</sub> and R<sub>2</sub> are independently selected from the group consisting of: H, methyl, ethyl, propyl and n-butyl;

R<sub>3</sub> and R<sub>4</sub> are independently selected from the group consisting of H, methyl, ethyl, n-propyl and n-butyl, or R<sub>3</sub> and R<sub>4</sub> are joined to form a three to seven member non-aromatic ring;

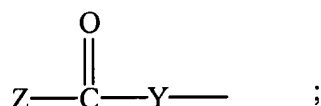
R<sub>5</sub> is selected from the group consisting of: R, ArR-, and Ar;

~~R<sub>6</sub> is H;~~

R<sub>7</sub> is ArR- or a saturated or unsaturated moiety having a linear, branched, or non-aromatic cyclic skeleton containing one to ten carbon atoms, zero to four oxygen atoms, and zero to four sulfur atoms, and the carbon atoms are optionally substituted with: =O, -OH, -SH, -NH<sub>2</sub>, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CHO;

R<sub>8</sub> is selected from the group consisting of: H and CH<sub>3</sub>; and

R<sub>9</sub> is:



R is defined as a saturated or unsaturated moiety having a linear, branched, or non-aromatic cyclic skeleton containing one to ten carbon atoms, zero to four nitrogen atoms, zero to four oxygen atoms, and zero to four sulfur atoms, and the carbon atoms are optionally substituted with: =O, =S, -OH, -OR<sub>10</sub>, -O<sub>2</sub>CR<sub>10</sub>, -SH, -SR<sub>10</sub>, -SOCR<sub>10</sub>, -NH<sub>2</sub>, -NHR<sub>10</sub>, -N(R<sub>10</sub>)<sub>2</sub>, -NHCOR<sub>10</sub>, -NR<sub>10</sub>COR<sub>10</sub>, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R<sub>10</sub>, -CHO, -COR<sub>10</sub>, -CONH<sub>2</sub>, -CONHR<sub>10</sub>, -CON(R<sub>10</sub>)<sub>2</sub>, -COSH, -COSR<sub>10</sub>, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR<sub>10</sub>, -SO<sub>2</sub>R<sub>10</sub>, wherein R<sub>10</sub> is a linear, branched or cyclic, one to ten carbon saturated or unsaturated alkyl group,

the ring formed by joining R<sub>1</sub> and R<sub>2</sub> or by joining R<sub>3</sub> and R<sub>4</sub> is a three to seven member non-aromatic cyclic skeleton within the definition of R,

X is defined as a moiety selected from the group consisting of: -OH, -OR, =O, =S,

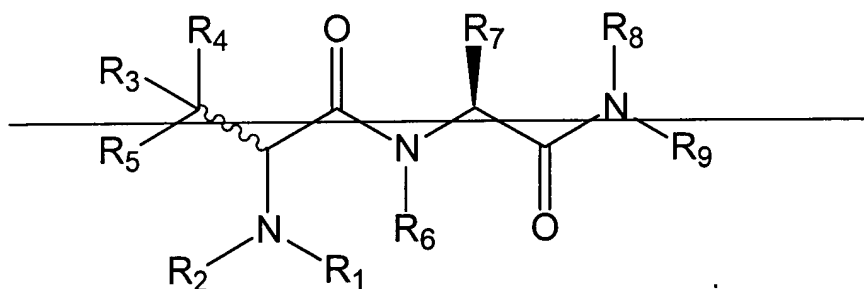
-O<sub>2</sub>CR, -SH, -SR, -SOCR, -NH<sub>2</sub>, -NHR, -N(R)<sub>2</sub>, -NHCOR, -NRCOR, -I, -Br, -Cl, -F, -CN, -CO<sub>2</sub>H, -CO<sub>2</sub>R, -CHO, -COR, -CONH<sub>2</sub>, -CONHR, -CON(R)<sub>2</sub>, -COSH, -COSR, -NO<sub>2</sub>, -SO<sub>3</sub>H, -SOR, and -SO<sub>2</sub>R;

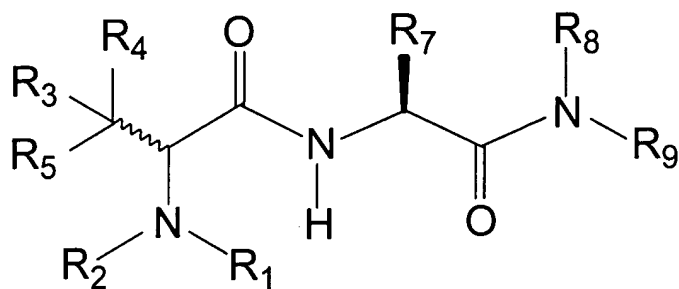
Ar is an aromatic ring selected from the group consisting of: phenyl, naphthyl, anthracyl, phenanthryl, furyl, pyrrolyl, thiophenyl, benzofuryl, benzothiophenyl, quinolinyl, isoquinolinyl, imidazolyl, thiazolyl, oxazolyl, and pyridinyl, optionally substituted with R or X;

Y is a linear, unsaturated, two to six carbon alkyl group, optionally substituted with phenyl, naphthyl, anthracyl, phenanthryl or a saturated or unsaturated moiety having a linear, branched, or non-aromatic cyclic skeleton containing one to ten carbon atoms optionally substituted with: =S, -OH; and

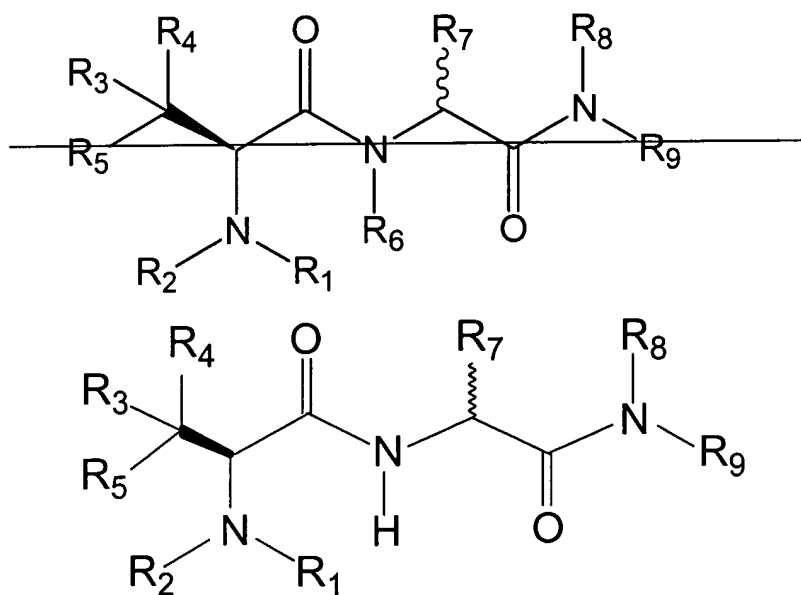
Z is defined as a moiety selected from the group consisting of: -OH, -OR; -SH; -SR; -NH<sub>2</sub>; or pharmaceutically acceptable salt thereof.

77. (Currently Amended) The compound of claim 75, having the configuration:





78. (Currently Amended) The compound of claim 75, having the configuration:



**REMARKS**

The Office Action dated October 8, 2004, has been received and carefully noted. The amendments made herein and the following remarks are submitted as a full and complete response thereto.

Claims 22-78 are pending in the present application. Claims 22, 26, 28, 30, 34, 61, 62, 64-66, 69, 71-73, and 75-78 are rejected. Claims 23, 25, 27, 31-33, 35-58, 60, 63, 67, 68, and 70 are objected to. Claim 74 is withdrawn from consideration by the Examiner. Claims 24, 29, and 59 are deemed to be allowable. Claims 22, 26, 28, 30, and 67 have been cancelled. Claims 23, 25, 27, 31, 34-38, 44, 46-47, 51, 53, 58, 60-66, 68-73, and 75-78 have been amended. No new matter has been added to the application.

Claim 73 is rejected under 35 U.S.C. § 112, first paragraph, as containing subject matter which was not described in the specification.

Applicants submit that the amendments to claim 73 obviate the § 112, first paragraph, rejection. Accordingly, Applicants request reconsideration and withdrawal of the rejection.

Claims 22, 34, 61, 62, 64-66, 69, 71, 72, 75-78 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite.

Claim 22 has been canceled. Applicants submit that the amendments to claims 34, 61, 62, 64-66, 69, 71, 72, and 75-78 obviate the 112, second paragraph, rejection. Accordingly, Applicants request reconsideration and withdrawal of the rejection.

Claims 22, 26, 28, 30, 61 and 75 are rejected under 35 U.S.C. § 102(a) as being anticipated by WO 97/04004 to Johnson ("Johnson"). Claim 61 is rejected under 35 U.S.C. § 102(b) as being anticipated by Reetz (*Agnew. Chem., Int. Ed. Engl.*, 31(12), 1626-9, 1992) ("Reetz"). Claim 75 is rejected under 35 U.S.C. §102(b) as being anticipated by Reetz. Claims 22 and 61 are rejected under 35 U.S.C. §102(b) as being anticipated by Falender (*Biocatalysts and Biotransformation*, 13(2); 131-139, 1995) ("Falender"). Claims 22, 26, 61, 62 and 75 are rejected under 35 U.S.C. §102(b) as being anticipated by Chang, L.L. (*Bioorganic & Medicinal Chemistry Letters*, 2(10), 1207-12, 1992) ("Chang"). Claim 75 is rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,214,799 to Webber ("Webber"). Claims 75, 77 and 78 are rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,126,939 to Eisenbach-Schwartz ("Eisenbach"). Claims 22, 26, 61 and 75 are rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,811,515 to Grubbs ("Grubbs"). Claims 22, 26, 61 and 75 are rejected under 35 U.S.C. §102(b) as being anticipated by Baldwin, J.E. (*J. Chem. Soc., Chem. Comm.*, (16), 1280-1, 1986) ("Baldwin").

Applicants note that claims 22, 26, 28, and 30 are cancelled. Applicants submit that the amendments to claims 61 and 75 render moot the anticipation rejection to claims 61, 62, 75, and 77-78. Additionally, Applicants note that the substituents disclosed by the references do not teach the substituents in the presently claimed invention. Accordingly, Applicants request reconsideration and withdrawal of the rejection.


Claim 22 is rejected under 35 U.S.C. §103 as being unpatentable over Falender. Applicants have cancelled claim 22, and accordingly, this rejection is rendered moot.

In view of the above, Applicants respectfully submit that each of claims 23-25, 27, 29, 31-73, and 75-78 recites subject matter that is neither disclosed nor suggested in the cited prior art. Applicants also respectfully request that claims 23-25, 27, 29, 31-73, and 75-78 be found allowable and that this application be passed to issue.

If for any reason, the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact the Applicants' undersigned attorney at the indicated telephone number to arrange for an interview to expedite the disposition of this application.

In the event this response is not considered to be timely filed, Applicants hereby petition for an appropriate extension of time. The fee for this extension may be charged to our Deposit Account No. 01-2300, referring to client-matter number 108281-00000, along with any other fees which may be required with respect to this application.

Respectfully submitted,

  
Richard J. Berman  
Registration No. 39,107

Customer No. 004372  
ARENT FOX, PLLC  
1050 Connecticut Avenue, N.W., Suite 400  
Washington, D.C. 20036-5339  
Tel: (202) 857-6000  
Fax: (202) 857-6395  
RJB/RKC/RN/pdc  
TECH/292896.1